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ABSTRACT

This report presents the results of a review of health professions education in Florida and the social and economic forces affecting the supply and demand for health professionals in the state. Individual sections focus on medicine, dentistry, veterinary medicine, pharmacy, public health, nursing, physician assistantship, physical therapy, occupational therapy, and dental auxiliaries. The report provides a review of issues related to data collection and application; curriculum; minority participation; coordination between practitioner preparation, health care delivery, and government; and the labor market. Although progress was noted in many areas, the review highlighted the underrepresentation of minorities among students completing health professions education programs. The report recommends that attention and resources continue to be focused on access, diversity, quality, and productivity. Three appendixes list reports on health education programs and provide enrollment, completion, and workforce data. (MDM)

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FLORIDA HEALTH PROFESSIONS EDUCATION PROFILES

HE 029 001

Prepared by the Florida Postsecondary Education Planning Commission

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The Postsecondary Education Planning Commission, initially created by executive order in 1980, given statutory authority in 1981 (SS 240.145 and 240.147, Florida Statutes), and reauthorized by the 1991 Legislature, serves as a citizen board to coordinate the efforts of postsecondary institutions and provide independent policy analyses and recommendations to the State Board of Education and the Legislature. The Commission is composed of 11 members of the general public and one full-time student registered at a postsecondary education institution in Florida. Members are appointed by the Governor with the approval of three members of the State Board of Education and subject to confirmation by the Senate.

The major responsibility of the Commission is preparing and updating every five years a master plan for postsecondary education. The enabling legislation provides that the Plan "shall include consideration of the promotion of quality, fundamental educational goals, programmatic access, needs for remedial education, regional and state economic development, international education programs, demographic patterns, student demand for programs, needs of particular subgroups of the population, implementation of innovative educational techniques and technology, and the requirements of the labor market. The capacity of existing programs, in both public and independent institutions, to respond to identified needs shall be evaluated and a plan shall be developed to respond efficiently to unmet needs."

Other responsibilities include recommending to the State Board of Education program contracts with independent institutions; advising the State Board regarding the need for and location of new programs, branch campuses and centers of public postsecondary education institutions; periodically reviewing the accountability processes and reports of the public and independent postsecondary sectors; reviewing public postsecondary education budget requests for compliance with the State Master Plan; and periodically conducting special studies, analyses, and evaluations related to specific postsecondary education issues and programs.

Further information about the Commission, its publications, meetings and other activities may be obtained from the Commission office, 224 Collins Building, Department of Education, Tallahassee, Florida, 32399-0400; telephone (904) 488-7894; FAX (904) 922-5388.

POSTSECONDARY EDUCATION PLANNING COMMISSION

FLORIDA HEALTH PROFESSIONS

EDUCATION PROFILES

MAY 1995

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EXECUTIVE SUMMARY

In the 1982 ***Master Plan for Florida Postsecondary Education***, the Commission recognized the considerable importance of health professions education programs and stated that such programs require separate and independent analysis of needs, student demand, cost, and coordination. Since 1982, the Commission has examined health professions education in Florida and the social and economic forces affecting the supply of and demand for health professionals in the State (see Appendix A). By matching program completion data of public and independent health professions education programs with anticipated state and national growth rates and with workforce projections on the average annual openings in Florida, it is possible to estimate the extent to which the State is meeting its need for health professionals (Table 1, Appendix B). Supply and demand information, although limited by the accuracy of future projections, can assist policymakers in planning and decision making concerning the allocation of resources to support education programs and ultimately, economic development of the health care field, one of the State's targeted industries.

Health professions education programs require separate and independent analysis of needs, student demand, cost, and coordination.

In master planning documents and previous reports on health professions education programs, the Commission has identified priorities to guide the State in providing quality educational opportunities available at affordable costs to citizens of Florida who wish and need to improve their educational background. Those priorties include: Access/Diversity, Quality, and Productivity. In its *Introduction*, this report provides a review of issues related to health professions education across the varied fields, including data collection and application; curriculum; minority participation; coordination between practitioners preparation, health care delivery, and government; and the labor market. Within the review of recent developments related to the issues common to the preparation of health professionals and delivery of care, the Commission found that state-level, regional, and institutional activities were addressing the concerns identified in earlier reports.

Although progress was noted in many areas, the Commission was particularly concerned with the underrepresentation of minorities among students completing health professions education programs. Despite numerous initiatives during the past five years to increase minority participation and completions, progress in selected programs or fields was no more common than setbacks in other programs or fields. While the population of Florida and its health care needs continue to become increasingly diverse, progress in the representation of minorities among the completers of health professions education programs has lagged behind.

Continuing to focus attention and resources on identified priorities will enhance the contribution postsecondary education makes towards providing health care to the State's citizenry, preparing individuals for the workforce, and economic development.

The Commission believes that continuing to focus attention and resources on the identified priorities of Access/Diversity, Quality, and Productivity and on the issue of increasing minority representation among health professions education programs will enhance the contribution postsecondary education makes towards providing health care to the State's citizenry, preparing individuals for the workforce, and economic development. The Commission intends to assist in this statewide effort in the following ways:

- Explore the use of technology to assist in supporting efforts to recruit and retain students in health professions education programs.

- Explore alternative measures and practices to ensure the quality of health professions education programs through the review of the costs and benefits of specialized accreditation currently being conducted by the Commission.

- Convene a meeting of the Coalition of Industry, Education, and Government for Health Related Issues to address minority representation in the health professions.

- Continue to support programmatic and funding initiatives that emphasize minority participation, e.g., programs that assist minorities in funding their health professions education and health professionals in practicing with underserved population in the State, programs that introduce minority students to health professions careers, and performance-based funding models that include measures of minority participation and completion in their design.

This report provides an update on enrollments, degrees completed, minority participation, and labor market supply and demand projections of those health professions with education programs in Florida that were studied in previous Commission reports. National information on the professions and education programs is provided for comparison where available. Some key findings from Florida's health professions education programs include:

- In Florida, first-year *allopathic medical school* enrollments generally have increased since the late 1980s. The percentage of first-year enrollments representing women and minority students fluctuated during the past five years.

- The percentage of *allopathic medical school* graduates in Florida who declared primary care (general and internal medicine, family practice, obstetrics/gynecology, and pediatrics) as their specialty increased to 59 percent in 1994.

- In Florida, the number of *osteopathic medical school* students and graduates have increased through the 1990s. The percentage of women has increased, but the percentages of minorities fluctuated.

- Women are comprising a higher percentage of *dental school* enrollments and graduates in recent years as are Asian and Pacific Islander students. The proportions of black and Hispanic students enrolling and graduating have fluctuated with Hispanic students strongly represented.

- Total enrollments in *veterinary medicine* have remained relatively stable since 1987 with a slight decline present since 1990. During the same seven-year period, the percentage of women enrolled has steadily increased.

- In the State University System, the number of *entry-level pharmacy* degrees granted has fluctuated since 1987-88 for the baccalaureate, PharmD, and both combined. The number of baccalaureate degrees granted exceeded the number of PharmD degrees until 1993-94. While percentages of degrees granted to women fluctuated, women received the greater share of degrees during the past seven years. The percentage of degrees granted to minorities varied greatly during the past seven years with blacks generally constituting the largest share of degrees granted to minority students.

- Enrollments in the master's level *public health* programs increased to a new high in Fall 1993. Approximately two-thirds of the students are women, and blacks have historically been well represented.

- In Florida, the number of graduates from *registered nursing* programs increased between 1989-90 to 1992-93, while the estimated number of average annual openings for RNs decreased.

- *Master's degree nursing* programs at state universities doubled between 1987 and 1993. In the past four years, the number of degrees granted increased 50 percent.

By matching program completion data of health professions education programs with workforce projections, it is possible to estimate the extent to which the State is meeting its need for health professionals.

Supply and demand information can assist policymakers in planning and decision making concerning the allocation of resources to support education programs and ultimately, economic development of the health care field, one of the State's targeted industries.

- Summer enrollments in the University of Florida's *physician assistant* program increased to 90 students in 1994. Typically, women comprise a majority of enrollments, and minority enrollments fluctuate for each representative group but remain relatively strong overall.

- Upper-level baccalaureate enrollments in the five state university *physical therapy* programs more than doubled between 1987 and 1993, reflecting in part growth in the number of programs. In Fall 1993, men accounted for approximately one-third of enrollments, and minorities for almost one-quarter of enrollments.

- Fall 1993 enrollments in the public *occupational therapy* programs increased 14 percent since 1991. Male students comprised nearly 15 percent of total enrollment, and blacks and Hispanics were well represented.

- The number of *dental hygiene* degrees granted rose steadily since the mid-1980s. Men represented less than two percent of the degrees granted during each of the past six years. Hispanics are the only well-represented minority group.

HEALTH PROFESSIONS EDUCATION POLICY ISSUES

In recent years, there has been considerable debate in the United States focused on the provision of health care for Americans now and in the future. Nationally, concern that the education and training of health professionals is out of step with the evolving health needs of the American people inspired the formation of the Pew Health Professions Commission. In ***Healthy America: Practitioners for 2005, An Agenda for Action for U.S. Health Professional Schools*** (1991), the Pew Commission stated that the nation's health care reform should proceed along two parallel paths: reorganization and refinance of the system to contain costs and provide access for all citizens; and reform of education training to produce more effective and responsive professionals.

In Florida, concern for comprehensive, long-range planning for health professions education has been evident in commissioned reports since the 1940s. In the 1982 ***Master Plan for Florida Postsecondary Education***, the Postsecondary Education Planning Commission recognized the considerable importance of health professions education programs and stated that such programs require separate and independent analysis of needs, student demand, cost, and coordination. Since 1982, the Commission has examined health professions education in Florida and the social and economic forces affecting the supply of and demand for health professionals in the State. Commission reports included the ***Health Professions Report*** (1983), the ***Comprehensive Health Professions Plan Review for Florida*** (1988), ***Florida Health Professions Education Profiles*** (1991), ***The Cost of Medical, Dental, and Veterinary Medical Education*** (1992), and the individual health professions (see Appendix A).

In Florida, concern for comprehensive, long-range planning for health professions education has been evident in commissioned reports since the 1940s.

Review of former Commission studies of major health professions education areas presented a number of issues that have repeatedly been identified as common to the preparation of health professionals and delivery of care and of concern to both educators and policymakers. The issues relate to individual professions as well as health care in the broader sense in Florida. These issues, which are interrelated, have been summarized in the following areas: data collection and application; curriculum; minority participation; coordination between practitioner preparation, health care delivery, and government; and the labor market.

Issue: Data Collection and Application

The accurate and timely collection of data is important to state policymakers in planning interventions to address the health needs of the State through quality educational programs and efficient ex-

penditure of limited resources. Decision making for each of the other issue areas is also enhanced by the availability of pertinent information. The collection of accurate data in a timely manner is costly and requires coordination among the providers and users of information to ensure an efficient and useful product.

Since the 1991 ***Profiles*** report, the Commission has continued to address the need for accessible and comparable education data. In ***Challenges, Realities, Strategies: The Master Plan for Florida Postsecondary Education for the 21st Century*** (1993), the Commission emphasized the importance of: 1) satisfying widespread public concern with educational productivity and quality output, and 2) having Florida's education system function as a continuum which fosters the smooth transition of students from one level to another. The processes that manifest these two themes of accountability and articulation are highly dependent upon access to compatible and useful data for analysis, planning, and evaluation.

The Commission further addressed the issue of data collection in ***Education Information Review*** (1995) by examining the use of student information for intersector policy analysis and decision making. In its report, the Commission called for increasing and formalizing communication among the providers and consumers of information, designing electronic access to reports and data and allowing file transfers, and designating a group to be responsible for coordinating improvements in the use of information for intersector policy analysis. The designated group, the Data Coordination Group, is also in the position of coordinating database linkages with entities external to education, such as the Department of Labor and Employment Security, to assist in labor market analysis.

As data availability has improved, expectations and information needs of policymakers and program planners have also increased.

Data collection and accessibility have improved in recent years as technology and sophistication of information systems have advanced. While initiatives have improved the quality and availability of information concerning public education in Florida, limitations remain in areas related to the health professions such as having ready access to data comparable across the education sectors and data concerning degree completions in the independent sector, professional licensure, and in-migration of professionals practicing in the State. In addition, as data availability has improved, expectations and information needs of policymakers and program planners have also increased. For example, enrollment and completions data along with labor information concerning employment and wages form the basis for a Performance Based Funding model for vocational programs targeted by the Occupational Forecasting Conference. Such an information/

funding model ultimately drives policy about education programs and economic development.

Issue: Curriculum

Nationally, curriculum reformers are calling for a team approach among health professionals in the delivery of primary care, teaching health professions students how to improve communication with patients and to better understand the stress experienced by patients, teaching preventive health care practices, and developing alternative teaching models that utilize advances in technology. In Florida, concerns with the curricula of health professions education programs have included:

- articulation and career laddering;
- program level, length, and requirements;
- interdisciplinary education; and
- inclusion of specific content areas.

Addressing such curriculum concerns involves extensive cooperation and coordination among the education sectors, accrediting and professional boards, licensing boards, the health care delivery system, and state level policymakers. Articulation has been a major concern in Florida, and educators in the fields of nursing and allied health have sought to address unmet employer demand, practitioner dissatisfaction with career advancement opportunities, and high turnover of the workforce by minimizing impediments to articulation without sacrificing program quality and maximizing recruitment efforts. Past Commission studies have recommended that individual postsecondary institutions should be actively involved in the development and implementation of statewide discipline-specific articulation agreements for health professions programs. Related Commission reports, ***Community College Program Length*** (1995) and ***Access to the Baccalaureate Degree in Florida*** (1995), called for limiting the number of credit hours required for degree completion for the associate of arts, associate of science, and baccalaureate degrees as a means to improve articulation and completion rates.

Expanding the knowledge base through curricular reform can compete with efforts to improve articulation and program completion.

Expanding the knowledge base through curricular reform can compete with efforts to improve articulation and program completion. On one hand, policymakers and educators are trying to contain program length; on the other hand, interest in keeping the curriculum relevant and responsive to the health needs of Florida's diverse population pressures faculty to extend program length. For example, the ***Master Plan on Aging for Florida***, published by the Florida Pepper

Commission on Aging in 1990, identified the need to support geriatric health care education to improve the availability and quality of care for the elderly and recommended earmarking funds for that objective.

Concern with the curriculum content was raised in correspondence to the Commission in April 1992, in which the Deputy Secretary for Health and State Health Officer stated that Florida faces enormous public health and educational challenges as we head into the next century. These challenges are partly the result of the changing demographic patterns, particularly with regard to age and race/ethnicity, as well as the changing socioeconomic climate in the State and the changes in family functioning. These changing demographics will greatly impact the health of and provision of health care to Floridians. Changes in the characteristics of the patient population that accompany these demographic changes include a dramatic increase in the number of old and very old persons and such phenomena as substance abuse, emergence of AIDS in the general population, teenage pregnancy, infant mortality and childhood communicable diseases. All of these factors will impact the health care needs of Floridians, and therefore practitioner preparation, in the future.

In summary, preparation of adequate numbers of health professionals is a critical step in meeting future public health needs of Florida. In addition, opportunities to pursue advanced degrees and participate in continuing education to improve knowledge and skills of public health professionals are necessary. Efforts to graduate professionals prepared to meet the divergent health needs of citizens and to work in the changing environment of health care delivery must coincide with efforts to improve articulation and degree completion in health professions education programs.

The need to increase participation and retention of minority students in health professions education programs continues to be viewed as a priority in efforts to better serve the health needs of a culturally diverse state.

Issue: Minority Participation

The need to increase participation and retention of minority students in health professions education programs has been a concern expressed in each of the Commission's health professions reports and continues to be viewed as a priority in efforts to better serve the health needs of a culturally diverse state. Since the 1991 ***Profiles*** report, progress in minority representation has been mixed. For example:

- Between 1989-90 and 1993-94, black representation in degrees granted by public universities increased in medicine, pharmacy, physician assisting, physical therapy, and occupational therapy; whereas, representation in dentistry, registered nursing, and public health programs decreased.

- During the same time period, Hispanics in public universities received a higher proportion of degrees granted in public health programs but a lower proportion in medical, dental, veterinary medicine, pharmacy, and registered nursing programs.

- Between 1989-90 and 1992-93, black representation in degrees or certificates granted by public community colleges and vocational centers increased in dental hygiene and assisting programs and decreased in registered nursing, licensed practical nursing, and nurse assisting programs.

- Hispanic representation in degrees or certificates granted by public community colleges and vocational centers increased in dental hygiene but decreased in registered nursing and dental assisting.

Although the number and percentage of minority students and graduates have increased since the early 1980s and participation rates of Florida are comparable to national rates, the number and percentage of minorities enrolled in and graduating from the majority of health professions programs in the State remain low compared to their proportional representation in the State's population.

Overall, the number and percentage of minorities enrolled in and graduating from the majority of health professions programs in the State remain low compared to their proportional representation in the State's population.

Institutional and Area Health Education Centers' (AHECs) minority recruitment and academic enhancement programs have contributed to increasing numbers of minority students enrolling in and completing health professions programs. Other state-level initiatives addressing minority participation in health professions education programs include creation of the Florida Minority Medical Education Trust Fund (1991) and the Florida Commission on Minority Health (1993). The Trust Fund, however, has not been funded to date. The Commission on Minority Health has focused initial efforts on recruitment and retention of minority students. In the 1991 ***Profiles*** report, the Commission recommended that as part of the state budgetary process, incentive funding to reward social access (equal access/equal opportunity) goals in degrees granted should target programs to increase minority representation in the health professions. To date, such incentive funding has not been established. Minority student enrollment and retention rates have, however, been included in required performance measures in the accountability reports of the State

Board of Community Colleges and the State University System, and program completions have been included in the accountability reports of the Independent Colleges and Universities of Florida. As the State moves toward performance-based funding, such measures could be incorporated into the funding models.

Issue: Coordination Between Practitioner Preparation, Health Care Delivery, and Government

Coordination of health professions education programs with government and health care delivery was cited as a concern in many past Commission reports. Not only was such coordination recommended to improve educational preparedness but also to form cost efficient joint programming and to enhance research efforts of faculty in determining the health care needs of the State. Since 1988, the Commission has assisted the Statewide Health Council in coordinating meetings of the Coalition of Industry, Education, and Government for Health Related Concerns--a group formed to foster collaborative dialogue on health professions education at the state level. Coalition discussions emphasized issues related to the health care labor market and promoted increased awareness of intersector problems and information being collected by each of the entities involved.

Coordination efforts are valuable for both programmatic and policy processes to assist in meeting the health needs of the State while economizing limited resources.

While the work of the Coalition and other groups that met to address mutual concerns focused on programmatic structure and curriculum, more recent coordination efforts have a forecasting and funding nature. For example, the Occupational Forecasting Conference and the Jobs and Education Partnership, created by the Legislature in 1993 and 1994 respectfully, coordinate data from education, the Department of Commerce, and the Department of Labor and Employment Security to: 1) identify emerging and expanding high-growth, high-wage industries that require less than a baccalaureate degree, and 2) coordinate state, federal, local, and private funds to prepare the workforce for those industries. These efforts are then matched with a resource allocation model, Performance-Based Incentive System (established by the 1994 Legislature), to fund technical education based on production levels of programs and their ability to turn out skilled, qualified workers in the occupations targeted by occupational forecasting. Approximately, 19 percent of occupations targeted by the Conference are in the health professions. Coordination efforts are valuable for both programmatic and policy processes to assist in meeting the health needs of the State while economizing limited resources.

Issue: Labor Market

Maintaining a balance between the supply of and demand for health professionals in the State is complicated by the varied entities involved (education, regulatory bodies, and industry) as well as consideration of regional requirements and in-migration. Regardless of analyses of the adequacy of supply statewide, all health professions experience geographic maldistribution of practitioners resulting in inadequate health care delivery to rural areas with low economic conditions. In ***Florida Health Professions Education Profiles*** (1991), the Commission stated that as the State continues to increase in population and in its demand for health care and its system of postsecondary education continues to develop, enrollment increases and program expansions in selected health areas and geographic regions may be needed to help maintain a balance in the supply and demand of health practitioners. As an alternative or supplement to program expansion in underserved regions, the use of technology may extend educational access to placebound students and health care to rural patients.

Challenges, Realities, Strategies: The Master Plan for Florida Postsecondary Education for the 21st Century (1993) stated that "postsecondary education must provide the human resource development, technology transfer, and research that will enable its citizens to be economically and socially productive and the State's business and industry to be highly competitive in a world economy." The Department of Labor and Employment Security reported that services will be the fastest-growing major segment of the economy and will generate the most new jobs in Florida between 1992 and 2005. Health services will generate the largest number of new services jobs in Florida, as improvements in medical technology and a growing and aging population increase the demand for medical services. Economic development policy is driven by identifying high growth, high wage industries for Florida. In the 1995 Occupational Forecasting Conference, 64 occupations that require less than a baccalaureate degree were identified that offer employment growth opportunities, stable (nonseasonal) employment, and higher earnings potential. Among those top ranked occupations, 12 health professions were listed (Figure 1). In 1993, the Florida Department of Commerce identified physicians among 30 occupations within targeted industries, including occupations that require a baccalaureate degree or higher.

FIGURE 1

Top Ranked Health Occupations That Require Less Than A Baccalaureate Degree

	Rank
Registered Nurse	1
Physical Corrective Therapy Assistst	5
Radiologic Technologist	5
Dental Hygientist	7
Licensed Practical Nurse	19
Medical Records Technician	23
Medicine and Health Service Manager	23
Optician, Dispensing and Measuring	29
Medical/Clincial Laboratory Technologist	32
Dietetic Technician	37
Dietitian and Nutritionist	41
Pharmacy Technician	42

Source: 1995 Occupational Forecasting Conference.

By matching program completion data of public and independent health professions education programs with anticipated state and national growth rates and with workforce projections on the average annual openings in Florida, it is possible to estimate the extent to which the State is meeting its need for health professionals (Table 1, Appendix B). In some fields, current reliance upon in-migration of health professions is clear (e.g., physicians, dentists, veterinarians, and physician assistants); and in other fields, reliance is not as integral (pharmacists and licensed practical nurses). Workforce information concerning non-licensed fields such as nurse assisting and dental assisting is incomplete since job preparation also takes place in the proprietary sector of education (completion data not available) and on the job. Supply and demand information, although limited by the accuracy of future projections, along with information concerning top occupations within targeted industries can assist policymakers in planning and decision making concerning the allocation of resources to support education programs and ultimately, economic development of the health care field, one of the State's targeted industries.

Summary

In master planning documents and previous reports on health professions education programs, the Commission has identified priorities to guide the State in providing quality educational opportunities available at affordable costs to citizens of Florida who wish and need to improve their educational background. Those priorties include: Access/Diversity, Quality, and Productivity. Within the review of recent developments related to the issues common to the preparation of health professionals and delivery of care, the Commission found that state-level, regional, and institutional activities are addressing the concerns identified in earlier reports. Although progress was noted in many areas, the Commission is particularly concerned with the underrepresentation of minorities among students completing health professions education programs. Despite numerous initiatives during the past five years to increase minority participation and completions, progress in selected programs or fields was no more common than setbacks in other programs or fields. While the population of Florida and its health care needs continue to become increasingly diverse, progress in the representation of minorities among the completers of health professions education programs has lagged behind.

The Commission is concerned with the underrepresentation of minorities among students completing health professions education programs.

The Commission believes that continuing to focus attention and resources on the identified priorities of Access/Diversity, Quality,

and Productivity and on the issue of increasing minority representation among health professions education programs will enhance the contribution postsecondary education makes toward providing health care to the State's citizenry, preparing individuals for the workforce, and economic development. The Commission intends to assist in this statewide effort in the following ways:

Continuing to focus attention and resources on identified priorities will enhance the contribution postsecondary education makes toward providing health care to the State's citizenry, preparing individuals for the workforce, and economic development.

- Explore the use of technology to assist in supporting efforts to recruit and retain students in health professions education programs.

- Explore alternative measures and practices to ensure the quality of health professions education programs through the review of the costs and benefits of specialized accreditation currently being conducted by the Commission.

- Convene a meeting of the Coalition of Industry, Education, and Government for Health Related Issues to address minority representation in the health professions.

- Continue to support programmatic and funding initiatives that emphasize minority participation, e.g., programs that assist minorities in funding their health professions education and health professionals in practicing with underserved population in the State, programs that introduce minority students to health professions careers, and performance-based funding models that include measures of minority participation and completion in their design.

This report provides an update on enrollments, degrees completed, minority participation, and labor market supply and demand projections of those health professions with education programs in Florida that were studied in previous Commission reports. National information on the professions and education programs is provided for comparison where available. Data were collected from a variety of state and national sources: ***Health Personnel in the United States: Eighth Report to Congress, 1991***; ***Health Professions Education for the Future: Schools in Service to the Nation***, Report of the Pew Health Professions Commission, February 1993; U.S. Department of Labor, Bureau of Labor Statistics; professional associations; ***Florida Industry and Occupational Employment Projections 1992-2005***, Florida Department of Labor and Employment Security, Division of Labor, Employment and Training, Bureau of Labor Mar-

ket Information, December 1994; ***Florida Health Care Atlas***; state board and division offices and education institutions in Florida; and former Commission reports.

Following this Introduction, each health profession is briefly described, and key information is summarized concerning national and Florida education programs and labor markets. Related Commission reports, supporting data tables on enrollments and program completions, and health professions academic degree program inventories for baccalaureate degrees and higher in the State's public and independent colleges and universities are located in the appendices. Unless otherwise noted, enrollment data for baccalaureate programs are based on upper level enrollments (junior and senior years). To obtain the greatest consistency in regard to data reporting, the primary sources of enrollment and completion data for programs offered in public institutions were state level board and division offices. Where possible, the founding date of each program is displayed in parentheses following the name of the sponsoring institution.

What should be the State's role in supporting reform in health professions education?

In light of the issues reviewed above, data compiled and trends identified in the following sections on the varied professions, and current reform efforts in the delivery of health care, the following questions are posed for continued discussion of the role of state policy toward health professions education programs:

What should be the State's role in supporting reform in health professions education? Could a comprehensive, state-level policy for health professions education unite funding, curricula, and interdependence with provision and regulation of health care concerns together to promote the principles of efficiency, effectiveness, and economy?

What should be the state funding policy for health professions education? Should the Legislature earmark specific funds for further development of a supply and demand information model; for incentive funding to reward meeting minority student goals; for developing innovative curriculum models designed to economize future expenses; for increasing the size and/or number of high demand programs? Should state funding models be weighted to reflect the increased costs associated with health professions education programs? Should students in health professions education programs be required to pay additional laboratory fees to offset the higher costs of their

programs? Do current financial aid programs designed for students in health professions programs adequately address needs of the State?

Should the State articulate a policy to guide institutions in health professions education program and curriculum decisions? What is the State's responsibility concerning program length; implementation of a core curriculum; articulation among programs; improving practitioner-to-patient relationships; the use of technology; development of innovative curriculum models that supplement educational experiences, improve access to geographically removed students or practitioners, and/or increase the efficiency of resources; and cultivation of a team approach to practicing medicine (especially in primary care medicine)?

What should be the State's role in promoting interdependence among health professions education, delivery, and regulation? In what ways can reform efforts be promoted through such linkages?

MEDICINE

As health care reform changes the delivery of health care, so must the preparation of health care providers change. Key to the success of reform efforts are questions concerning what kind of medical doctors are needed and how doctors are trained to meet the needs of society. Reform efforts call for increased production of primary care physicians and doctors who communicate well with their patients, can work in teams with other physicians and health care providers, and can work in managed care settings.

Florida offers preparation to practice medicine in both allopathic and osteopathic medicine. Allopathic medical doctors practice medicine that makes use of all measures proved effective in the treatment of disease. Osteopathic medicine is similar to allopathic medicine except that its practice emphasizes the importance of the musculoskeletal structure and manipulative therapy in the maintenance and restoration of health. Florida has three schools of allopathic medicine, one private program at the University of Miami (1951) and two public programs at the University of Florida (1956) and the University of South Florida (1971), and one school of osteopathy, a private program at Nova Southeastern University (1981). Previous Commission reports identified a number of priorities relating to medical education for the State including adequacy of supply, the availability of primary care, geographic distribution, and gender and racial mix of enrollments and graduates.

Reform efforts call for increased production of primary care physicians and doctors who communicate well with their patients, can work in teams with other physicians and health care providers, and can work in managed care settings.

Allopathic Medical Education

- Nationally, applicant, first-year enrollment, total enrollment, and degrees completed at allopathic and osteopathic medical schools have increased since the late 1980s. The Association of American Medical Colleges reported that about 45,100 people applied to allopathic medical schools as of June 15, 1994, surpassing the 1993 record of 42,808 applicants well before the application period closed in October.

- Nationally, the percentages of first-year new entrants have increased since the late 1980s for students who are women, black, and Asian and Pacific Islander (Table 2). The percentage of Hispanic first-year new entrants declined slightly in 1992-93.

- In Florida, first-year enrollments have generally increased since the late 1980s. The percentage of first-year enrollments representing women and minority students fluctuated during the past five years (Table 3).

- The University of Florida offers the Program in Medical Sciences (PIMS) at Florida State University, an alternative site for the first year of medical school for students from Florida State University, Florida Agricultural and Mechanical University, and the University of West Florida. Enrollment in PIMS approximates 30 students annually. Minority and women enrollments fluctuated over the past seven years with black student enrollment being generally low (Table 4).

- In Florida, total fall enrollments increased between 1993 and 1994 (Table 5). The percentage of total fall enrollments representing women and minority students fluctuated during the same time period.

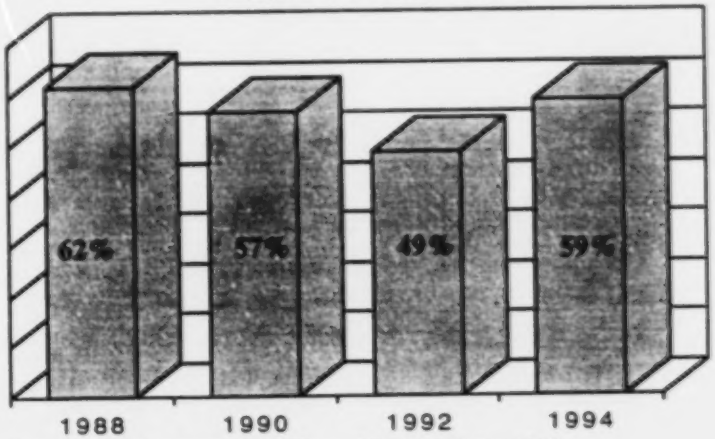
- The number of degree recipients from the public programs of medicine fluctuated between 194 and 209 during the past seven years. Despite fluctuations, women represented an increasing share of enrollments (38.1 percent in 1993-94) (Table 6).

- The percentage of medical school graduates in Florida who declared primary care (general and internal medicine, family practice, obstetrics/gynecology, and pediatrics) as their specialty increased to 59 percent in 1994 (49 percent in 1992) (Figure 2, Table 7).

The percentage of medical school graduates in Florida who declared primary care as their specialty increased in 1994.

FIGURE 2

PERCENTAGE OF MEDICAL SCHOOL GRADUATES IN FLORIDA WHO DECLARED PRIMARY CARE AS THEIR SPECIALTY 1988, 1990, 1992, AND 1994



Note: Board of Regents, Office of Health Affairs, 1994.

- The percentage of Florida graduates serving residencies in either Florida or Southern Regional Education Board (SREB) states has increased since the late 1980s (77.3 percent in 1994) (Table 8).

Osteopathic Medical Education

- Nationally, enrollments in schools of osteopathic medicine have increased since 1987-88. The percentage of students who are women or represent minorities has fluctuated since the mid-1980s (Table 9). The American Association of Colleges of Osteopathic Medicine (AACOM) reported that enrollments increased more than 7,800 students last year in its 16 member schools, an increase of six percent over the 1992-93 total.

- Nationally, the number of graduates in 1992-93 met the previous high of 1,609 from 1988-89 (Table 9). In the 1993 graduating class of AACOM member schools, 37 percent of seniors planned careers in primary care (up from 32 percent in 1992).

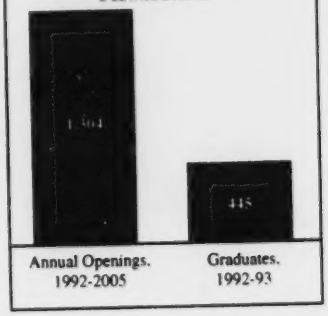
- In Florida, the number of students and graduates increased through the 1990s (Table 10). The percentage of women increased, but the percentages of minorities fluctuated.

Labor Market

- Nationally, 51 percent of U.S. medical school seniors were placed in family practice, internal medicine, or pediatrics residencies in 1994, compared to 48.1 percent in 1993. The 13,549 seniors that were matched by the National Resident Matching Program included allopathic and osteopathic medical students.

- The Florida Department of Labor and Employment Security, Bureau of Labor Market Information, projects that between 1992 and 2005, the number of physicians in Florida will increase 35.6 percent, as compared to national projections for a 28 percent increase between 1988 and 2000 (Table 1). The Bureau projects a total of 1,304 average annual openings for employment in Florida between 1992 and 2005, based on the projection for expansion of 795 positions and 509 vacancies due to retirement, death, or other separation from the workforce (Figure 3).

FIGURE 3
FLORIDA LABOR MARKET: PHYSICANS



DENTISTRY

The U.S. Department of Health and Human Services reports that changing demographics of the nation's population, scientific and technological advances in dentistry, new materials and processes, and changing dental disease patterns are playing important roles in the evolution of dentistry. Dental education encompasses a four-year professional program culminating in a doctoral degree in dental surgery (D.D.S.) or in dental medicine (D.M.D.).

The College of Dentistry at the University of Florida, the only dental school in the State, enrolled its charter class in 1972. Previous Commission reports identified a number of priorities relating to dental education for the State including adequacy of supply, geographic distribution, and gender and racial mix of enrollments and graduates. Florida's reliance on in-migration to meet the demand for dentists, unmet capacity in its dental program, and maldistribution of dentists throughout the State continue to be areas of concern in terms of meeting the dental health delivery needs of the State.

National Dental Education

- Nationally, enrollments in schools of dentistry began increasing in 1990, reversing a decline since the mid-1970s (Table 11).

- The percentage of graduates who are women increased to 33.4 percent in 1992-93 (Table 11). Although the percentage of graduates who are black or Hispanic fluctuates, the percentage who are Asian and Pacific Islander continues to rise.

Nationally, enrollments in schools of dentistry began increasing in 1990, reversing a decline since the mid-1970s.

Florida Dental Education

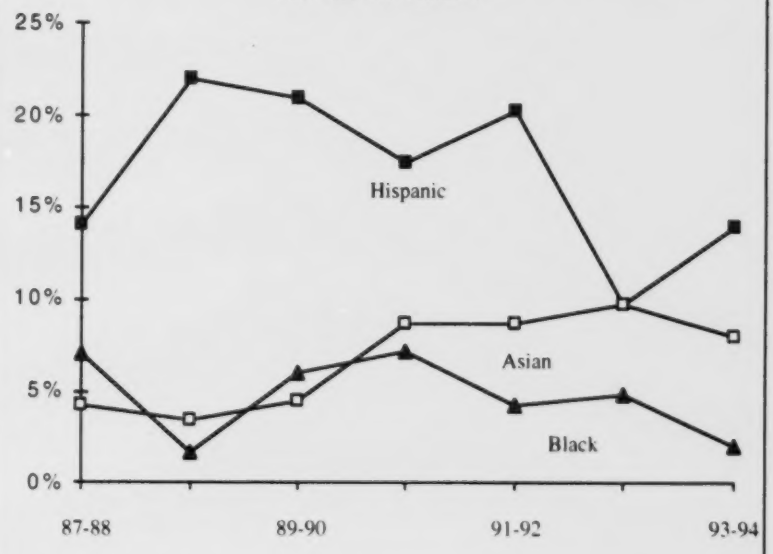
- The college of Dentistry received over 500 applications in 1994 for 78 positions.

- First-year enrollments have remained stable at 76 to 78 students annually, with capacity set at 80. Total enrollment levels have fluctuated between 282 and 301 during the past six years, with the highest enrollment reported in 1993 (Table 12).

- Fluctuations have also occurred with the number of graduates annually with no trend apparent (Table 12). The percentage of graduates who are black has decreased since a high in 1990-91 (Figure 4).

The percentage of Florida dentistry graduates who are black has decreased since a high in 1990-91.

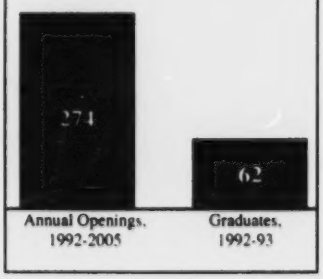
FIGURE 4
PERCENTAGE OF MINORITY GRADUATES FROM UNIVERSITY OF FLORIDA COLLEGE OF DENTISTRY 1987-88 TO 1993-94



Source: Compiled by the Postsecondary Education Planning Commission.

- Women are comprising a higher percentage of enrollments and graduates in recent years as are Asian and Pacific Islander students (Table 12). The proportions of black and Hispanic students enrolling and graduating have fluctuated with Hispanic students strongly represented (Figure 4).

FIGURE 5
FLORIDA LABOR MARKET: DENTISTS



- Ninety-five percent of Florida graduates passed the 1993 State Board Dental Examination (compared with a pass rate of approximately 71 percent for non-Florida graduates).

Labor Market

- The Florida Department of Labor and Employment Security, Bureau of Labor Market Information, projects that between 1992 and 2005, the number of dentists will increase by 7.9 percent, as compared to national projections for a 13 percent increase between 1988 and 2000 (Table 1). The Bureau projects a total of 274 average annual openings for employment in Florida between 1992 and 2005, based on the projection for expansion of 59 positions and 215 vacancies due to retirement, death, or other separation from the workforce (Figure 5).

VETERINARY MEDICINE

Veterinarians are primarily responsible for the health of farm livestock, poultry, and companion or pet animals. These animals are the major concern for most veterinarians in private practice as well as in governmental service. The U.S. Department of Health and Human Services recognizes veterinary medicine as contributing to human health and quality of life through the care of animals. Veterinary medicine protects people from health risks related to animals and animal products, including transmittal of specific diseases, and plays an important role in medical and biological research and in the protection of the environment.

Professional veterinary medical education is offered in 24 state-funded and three privately endowed colleges in the United States (1993). One veterinary medicine program is located in Florida, the College of Veterinary Medicine at the University of Florida, and offers the professional degree in veterinary medicine (D.V.M.). Its charter class was admitted in Fall 1976. Previous Commission reports identified a number of priorities relating to veterinary education for the State including the racial mix of enrollments and graduates.

The U.S. Department of Health and Human Services recognizes veterinary medicine as contributing to human health and quality of life through the care of animals.

National Veterinary Medicine Education

- Nationally, first-year and total enrollments have fluctuated during the past six years while showing slight increases since 1990-91 (Table 13).

- A decline in degrees granted has reversed since 1990-91, showing a slight increase in the two subsequent years (Table 13).

- During the same period, enrollments of and degrees granted to women have consistently increased reaching 62.2 percent of the degrees granted in 1992-93 (Table 13).

- Minority enrollments and degrees granted have remained below eight percent (Table 13). Minority first-year enrollments have fluctuated since 1987-88, with slight increases since 1990-91. While the percentage of minorities as a group receiving degrees has slowly risen, the percentage of blacks has declined slightly for the last three years.

Florida Veterinary Medicine Education

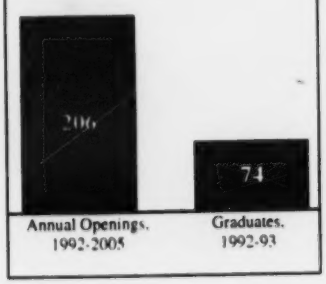
- Total enrollments have remained relatively stable since 1987 with a slight decline present since 1990 (Table 14). During the same

seven-year period, the percentage of women enrolled has steadily increased to 67.9 percent in 1993.

- Annually, between 70 and 80 degrees are granted; of these the percentage of women graduates has increased to 66.7 percent (Table 14).

- Minority representation in enrollments and degrees granted has fluctuated and remained low, especially for black students (Table 14).

FIGURE 6
FLORIDA LABOR MARKET: VETERINARIANS



Labor Market

- The Florida Department of Labor and Employment Security, Bureau of Labor Market Information, projects that between 1992 and 2005, the number of veterinarians in Florida will increase by 37.9 percent, as compared to national projections for a 26 percent increase between 1988 and 2000 (Table 1). The Bureau projects a total of 206 average annual openings for employment in Florida between 1992 and 2005, based on the projection for expansion of 125 positions and 81 vacancies due to retirement, death, or other separation from the workforce (Figure 6).

PHARMACY

The U.S. Department of Health and Human Services states that the decade of the 1990s presents the pharmacy profession with continued challenges as it defines its role in meeting society's need for appropriate drug use. As the profession addresses these challenges, the traditional role of pharmacists in the preparation of prescriptions and their future role in the delivery of a service are being addressed by educators, practitioners, third party payers, professional associations, and policy and decision makers. There is also a continuing indication that the supply of pharmacists is not meeting current demand.

The decade of the 1990s presents the pharmacy profession with continued challenges as it defines its role in meeting society's need for appropriate drug use.

There are two entry-level paths to become a pharmacist, a five-year baccalaureate or a six-year Doctor of Pharmacy (PharmD). For a number of years there has been debate concerning making the PharmD the sole entry-level path to the profession. In 1987, the Postsecondary Education Planning Commission completed a comprehensive review of pharmacy education in Florida. During the review, the Commission received testimony on the increasing complexity of the pharmacy profession, the development of patient-oriented pharmaceutical services, and the expansion of the clinical roles of pharmacists in the total delivery of health care. The expansion of the scope of pharmacy services in Florida combined with the State's population growth had contributed to a shortage of pharmacists. Testimony by industry representatives indicated that the different demands and needs of a traditional community pharmacy as compared to institutional pharmacy practice should be reflected in pharmacy education. Industry representatives also stated that demand for baccalaureate graduates remained high. Additionally, the cost of a mandated additional year of pharmacy education would increase costs to the State and to students at a time when both general revenue and student financial aid were severely constrained. The Commission stated that testimony received in the 1987 review failed to provide justification for the elimination of the five-year baccalaureate degrees in Florida public colleges of pharmacy. The Commission, therefore, recommended, and the Board of Regents endorsed, maintaining both the five-year baccalaureate and six-year doctor of pharmacy degree programs.

In 1992, the Commission responded to a resolution by the American Association of Colleges of Pharmacy (AACP) to support a single entry-level education program for pharmacy, the PharmD. In its response, the Commission stated that it reviewed the findings of its 1987 report in light of the AACP resolution and reaffirmed its position to maintain the baccalaureate program in the public colleges of pharmacy. A state university program review of pharmacy education

was initiated in 1994 by the Board of Regents at which time the issue was reassessed. The consultant for the review recommended moving toward a single entry-level education program—the PharmD. At this time, the Board of Regents intends to maintain both entry-level degree programs. The accrediting body for the profession is on record as anticipating that only programs offering the PharmD degree will be evaluated for accreditation shortly after the year 2000.

The University of Florida (1923) and Florida Agricultural and Mechanical University (1951) offer both the baccalaureate and PharmD entry level pharmacy programs. In the independent sector, Nova Southeastern University (1987) previously offered both pharmacy programs, but beginning with the 1995 entering class, only the doctor of pharmacy program will be available.

National Pharmacy Education

- Nationally, there were 75 schools and colleges of pharmacy education in 1994, 20 of which offered the PharmD as the only entry-level degree (up from seven in 1988). Entry-level PharmD program enrollments continue to increase in numbers and have grown from 6.5 percent of total entry-level enrollments in 1980-81 to 19.2 percent in 1992-93.

Nationally, pharmacy enrollments have continued to increase since the mid-1980s following sharp declines in the late 1970s and early 1980s.

- Enrollments have continued to increase since the mid-1980s following sharp declines in the late 1970s and early 1980s. In Fall 1992, there were 31,519 students enrolled in entry-level degree programs; 25,284 in baccalaureate programs, and 6,235 in PharmD programs. The proportion of women enrolled increased steadily, reaching 63.4 percent in 1992. While enrollments for black students have fluctuated (7.4 percent in 1992), Hispanic enrollments have declined slightly (3.4 percent in 1992) and Asian and Pacific Islander enrollments have risen (13.1 percent in 1992) during the past six years.

- The number of entry-level degrees granted showed strong growth through the late 1980s then stabilized in the 1990s (7,113 in 1991-92) (Table 15). Of the entry-level graduates in 1991-92, 82.9 percent received baccalaureate degrees and 17.1 percent received PharmD degrees. More entry-level PharmD degrees were awarded in 1991-92 than in any previous year (a 1.8 percent increase over the previous year). In 1991-92, women comprised 62.1 percent of graduates, and blacks, Hispanics, and Asian and Pacific Islanders comprised 5.4 percent, 4.1 percent, and 10.8 percent, respectively.

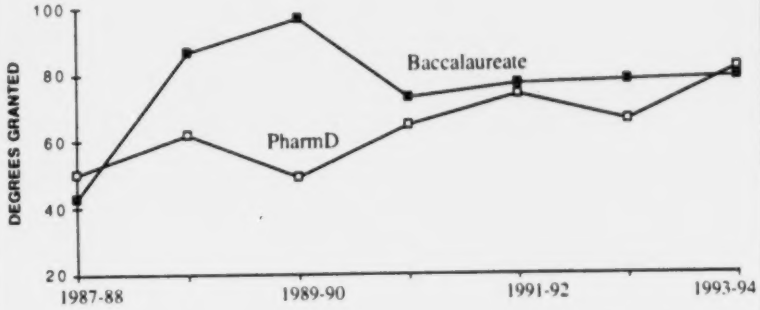
Florida Pharmacy Education

- In the State University System, the number of degrees granted has fluctuated since 1987-88 for the baccalaureate, PharmD, and both combined (161 in 1993-94 combined) (Table 16). The number of baccalaureate degrees granted exceeded the number of PharmD degrees until 1993-94 (82 PharmD and 79 baccalaureate degrees) (Figure 7). While percentages of degrees granted to women fluctuated, women have received the greater share of degrees during the past seven years. The percentage of degrees granted to minorities varied greatly during the past seven years with blacks generally constituting the largest share of degrees granted to minority students.

- Nova Southeastern University began graduating entry-level pharmacists in 1990. The number of graduates peaked in 1992-93 at 116 and then decreased to 86 in 1993-94 (Table 17). Representation of women and minorities among degree completers fluctuated in the five graduating classes with Hispanics consistently showing a strong presence.

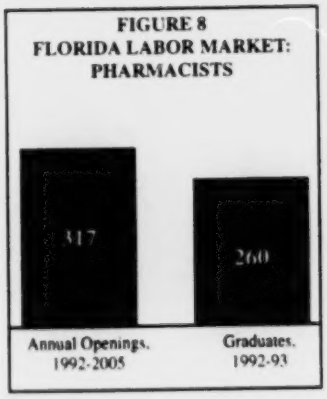
FIGURE 7

BACCALAUREATE AND PHARMD DEGREES GRANTED BY STATE UNIVERSITY SYSTEM COLLEGES OF PHARMACY 1987-88 TO 1993-94



Source: Compiled by the Postsecondary Education Planning Commission.

The number of baccalaureate degrees granted exceeded the number of PharmD degrees until 1993-94.



Labor Market

- The Florida Department of Labor and Employment Security, Bureau of Labor Market Information, projects that between 1992 and 2005, the number of pharmacists in Florida will increase by 31.9 percent, as compared to national projections for a 26 percent increase between 1988 and 2000 (Table 1). The Bureau projects a total of 317 average annual openings for employment in Florida between 1992 and 2005, based on the projection for expansion of 197 positions and 120 vacancies due to retirement, death, or other separation from the workforce (Figure 8).

PUBLIC HEALTH

The U.S. Department of Health and Human Services describes the professional categories in public health as diverse, imprecisely delineated, and frequently overlapping. Major categories of public health include environmental health personnel and health educators. Specialty areas include, but are not limited to, epidemiologists; biostatisticians; several nurses, physicians, and veterinarians; public health nutritionists, hospitals, health maintenance organizations and nursing homes. Public health personnel are employed in such diverse settings as government agencies, foundations, and private companies. The diversity in professional categories and settings contributes to the absence of adequate, timely data on the professionals employed in public health.

While public health personnel have been prepared through undergraduate degrees in related areas, graduate education in public health programs is the primary source of personnel prepared extensively in public health. There were 24 accredited schools of public health in 1991, eight private and 16 public programs. In addition, numerous programs are offered at other public and independent postsecondary institutions and contribute to the overall supply of public health personnel. Schools of public health continue to report a shortage of qualified faculty, especially physicians, but also of environmental epidemiologists, toxicologists, nutritionists, nurses, industrial hygienists, mathematical statisticians, and computer specialists.

Graduate education through public health programs is the primary source of personnel prepared extensively in public health.

Graduate programs are available in Florida at the University of South Florida (1983), through a joint program between Florida International University (1985) and the University of Miami (private program, 1980), and at Nova Southeastern University (1995). (The Central Michigan University offers a master's program at a Florida site.) Currently, the only doctoral program in public health is located at the University of South Florida (1987). The University of Miami, however, will begin enrolling students in a doctoral program in Fall 1995. Other institutions in the State offer courses in related fields.

National Public Health Education

- Licensure as public health professionals is not offered in any state, no national examinations determine practice qualifications, and no standards of care have been promulgated against which to assess performance.

- The master's degree (M.P.H. or M.S.P.H.) is offered by all 24 accredited schools of public health, by seven accredited health education programs, and by 11 community medicine programs. An estimated additional 69 nonaccredited programs also offer this degree.

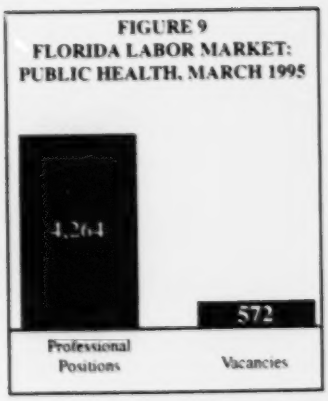
Florida Public Health Education

- Enrollments in the master's level public health programs at USF and FIU increased to a new high of 389 in Fall 1993 (Table 18). Approximately two-thirds of the students are women, and blacks have historically been well represented.

- The number of master's degrees granted in public sector programs has risen consistently in recent years to reach 124 in 1993-94 (Table 18). The majority of graduates are women. The percentage of graduates who are black or Hispanic fluctuated annually; however, over the past four years, minorities were well represented among the graduates.

- Between 1989-90 and 1993-94, the University of Miami granted between eight and 14 master's degrees in public health annually.

- During the past two years, nine students completed the doctoral program in public health at the University of South Florida (Table 19). Of those, seven were women, and one graduate was black.



Labor Market

- In Florida, the Department of Health and Rehabilitative Services' State Health Office provides leadership, policy, and administrative direction and evaluation for public health activities and services. The State's public health system includes programs providing activities that are categorized into the service levels of public health, personal health, and primary care. In March 1995, the Florida public health work force totaled approximately 4,264 professional health care positions, in which there were 572 vacancies (13.4 percent) (Figure 9).

NURSING

The U.S. Department of Health and Human Services reports that nursing personnel are the largest group of health care workers. Nursing personnel consist of three occupational groups: registered nurses (RNs), licensed practical nurses (LPNs), and assistive nursing personnel (e.g., nursing aides, orderlies, home health aids). Each group differs in educational requirements, nature and scope of practice, and level of responsibility. RNs and LPNs are subject to state licensing requirements. Responsibilities for RNs, the largest group within the nursing category, range from the provision of direct patient care within organized nursing systems or on a self-employed basis in a one-on-one patient/client relationship, to the management and direction of complex nursing care systems. They also function as teachers of nursing to the variety of nursing groups. LPNs, the smallest of the three nursing groups, primarily are providers of direct patient care in institutionalized settings. Assistive nursing personnel provide assistance to nurses in their provision of direct patient care.

RNs and LPNs are prepared in formal education programs; whereas, assistive nursing personnel are primarily trained on-the-job or in relatively short-term educational courses. Preparation to become an RN may be obtained in a variety of educational settings. Programs vary in length and provide different credentials. All graduates, however, take the same licensing examination, which measures "minimum safe practice." Career opportunities for registered nurses are broader for holders of the baccalaureate degree, than for those holding an associate degree. In Florida, students prepare for licensure in bachelor degree programs (BSN), associate degree programs (ADN), and a diploma program (hospital based, typically three years in length).

RNs and LPNs are prepared in formal education programs; assistive nursing personnel are primarily trained on-the-job or in relatively short-term educational courses.

Discussion of health care reform has contributed to increased attention to master-prepared nurses. Master's degrees prepare nurses for advanced clinical practice, teaching, and administration. Those RNs who are enrolled in the advanced clinical practice content areas are being prepared to be clinical nursing specialists and/or nurse practitioners, nurse-midwives, and nurse anesthetists. Advanced nursing skills may also be obtained in doctoral programs or programs that grant certificates for nurse practitioner and/or nurse-midwifery preparation.

National Nursing Education

- Of the 1,484 nursing education programs leading to RN licensure in the nation in Fall 1991, 57 percent were ADN programs, 34 percent were BSN programs, and 9 percent were diploma

programs (located in hospitals). These figures represent a decline in percentage of diploma programs (59 percent) and increases for the ADN (14 percent) and BSN (26 percent) programs since 1980-81.

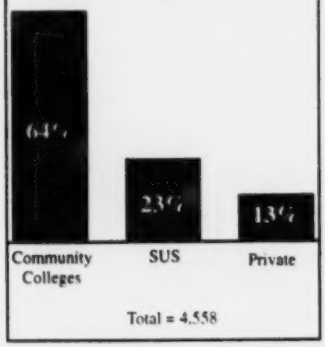
- Nationally, the number of students graduated from all types of RN programs increased in 1989-90 (65,088) for the first time since 1984-85. By 1992-93, 89,715 students completed RN programs.

- The latest enrollment survey by the American Association of Colleges of Nursing (AACN) reveals that enrollment of master's degree students in nursing schools rose 10.7 percent in 1994-95 compared to the previous year, to 30,718 students. Over the last five years, master's degree enrollment climbed by an average of 1,523 students annually. Of master's degree students enrolled in 1994-95, 10,935 (36 percent) are studying to be nurse practitioners.

- Between August 1993 and July 1994, clinical nurse specialist programs generated the most graduates (2,648) among responding schools, followed by graduates from programs for nurse practitioner (1,867), nursing administration (1,191), nursing education (608), nurse midwifery (216), and nurse anesthesia (196) (AACN).

- Schools reported that the largest number of specialty nurse practitioner programs are in family practice (136), followed by pediatrics (58), adult practice (53), gerontology (49), OB-GYN/ women's health (43), neonatology (30), adult psychiatry/mental health (22), and adult acute care (21) (AACN).

FIGURE 10
RN PROGRAM COMPLETIONS, 1992-93



Florida Nursing Education

- One diploma program exists in Florida at Jackson Memorial Hospital, where the vacancy rate for registered nurses decreased from about 10 percent in the late 1980s to no more than two percent today. Recently, the hospital reported plans to close the program.

- Public institutions in Florida granted 3,957 bachelor's/associate degrees in nursing in 1992-93: 1,064 in the State University System and 2,893 community colleges (Figure 10, Tables 20 and 21). The percentage of male recipients increased to 12.7 percent

in ADN programs and 10.2 in baccalaureate programs. Minority representation in degrees completed is higher in the BSN programs than in the ADN programs (Figure 11).

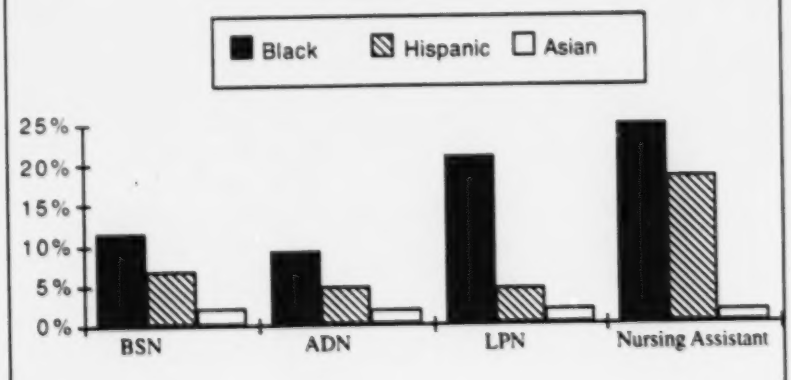
- In Florida, the number of graduates from registered nursing programs increased from 3,073 in 1989-90 to 4,558 in 1992-93. In contrast, the estimated number of average annual openings for RNs in Florida decreased from 7,517 (for 1987-2000) to 4,708 (for 1990 to 2005) (Table 1).

- Licensed practical nurse (LPN) programs are offered in community colleges and district vocational centers. In 1992-93, 2,268 LPN certificates were awarded in the public postsecondary sector: 453 in community colleges and 1,815 in district vocational centers (Tables 22 and 23).

- Although assistive nursing personnel can receive their training on the job, public sector community colleges and district vocational centers offer nurse assisting programs. In 1992-93, there were 3,109 completers of nurse assisting programs in the public sector: 739 in community colleges and 2,370 in district vocational centers (Tables 24 and 25).

FIGURE 11

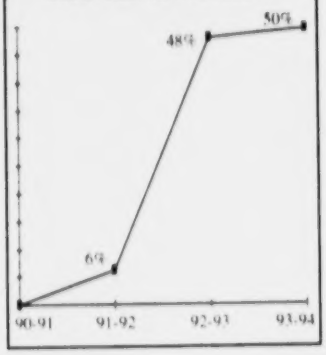
PERCENTAGE OF NURSING DEGREES CERTIFICATES GRANTED TO MINORITIES BY PUBLIC INSTITUTIONS, BY PROFESSIONAL LEVEL 1992-93



Source: Compiled by the Postsecondary Education Planning Commission.

Minority representation in nursing degrees completed varies among professional levels.

FIGURE 12
PERCENTAGE GROWTH IN MASTER'S NURSING DEGREES GRANTED SINCE 1990-91



- Master's degree programs are offered at five state universities: Florida Atlantic University, Florida State University, Florida International University, University of Florida, and University of South Florida. Fall enrollments doubled between 1987 and 1993 (from 340 to 681) (Table 26). In the past four years, the number of degrees granted increased 50 percent (from 127 in 1990-91 to 190 in 1993-94) (Figure 12).

- Master's degree programs are also offered at two independent universities: Barry University and the University of Miami. In 1992-93, 70 master's degrees in nursing were conferred: 27 at Barry University and 43 at University of Miami.

Labor Market

- Demand for RNs has decreased in large part because: 1) hospitals have cut costs, performing more outpatient procedures, and downsized nursing staffs; 2) some duties, traditionally done by RNs, have been passed on to lower-paid nursing staff; 3) recent economic conditions pushed more experienced nurses back to the workforce and raised retention rates of working nurses; 4) more students are completing nursing programs; and 5) salaries have risen and scheduling flexibility has increased.

- Hospitals are interested in nurses with more advanced skills, i.e., specialization in intensive and coronary care, medical/surgical care, emergency care, and maternal-child care.

- Health care experts predict that while hospitals will continue as major employers of nurses, places like outpatient clinics and home health care agencies will need greater numbers of nurses in the future. Nurses in those settings need a higher education level and the ability to function autonomously.

- Workforce supply and demand historically has been cyclical in nature. Another shortage may be looming as the aging of the baby boom generation coincides with the retirement of current, mostly older, RNs.

- In Florida, RN vacancy rates have declined by more than half from their peak in the late 1980s. A survey by the Florida Hospital Association in March found that only 7 percent of all jobs for registered nurses were unfilled. That compares with a 16.3 percent vacancy rate in 1989.

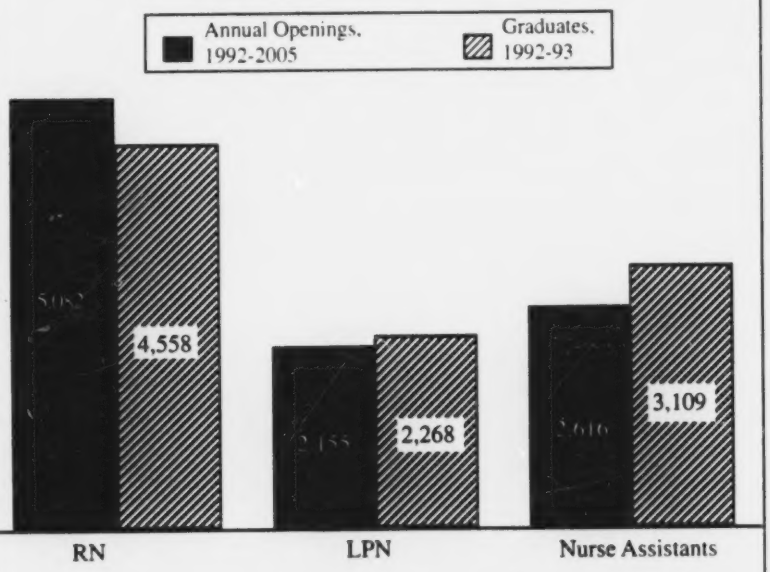
- The Florida Department of Labor and Employment Security, Bureau of Labor Market Information, projects that between 1992 and 2005, the number of registered nurses, licensed practical nurses, and nursing aids and orderlies in Florida will increase by 46.0, 44.9, and 44.2 percent, respectively, as compared to national projections for 39, 37, and 32 percent increases between 1988 and 2000 (Table 1). The Bureau projects a total of :

  - 5,082 average annual openings for RNs in Florida between 1992 and 2005, based on the projection for expansion of 3,569 positions and 1,513 vacancies due to retirement, death, or other separation from the workforce (Figure 13);

  - 2,155 average annual openings for licensed practical nurses in Florida between 1992 and 2005, based on the projection for expansion of 1,478 positions and 677 vacancies due to retirement, death, or other separation from the workforce (Figure 13); and,

  - 2,610 average annual openings for nursing aides and orderlies in Florida between 1992 and 2005, based on the projection for expansion of 1,916 positions and 694 vacancies due to retirement, death, or other separation from the workforce (Figure 13).

FIGURE 13
FLORIDA LABOR MARKET: NURSING



Source: Compiled by the Postsecondary Education Planning Commission.

Currently, labor market demand is being adequately met by nursing programs in the State.

PHYSICIAN ASSISTANT

Physician assistants are health practitioners who care for patients under the supervision of a licensed physician. Physician assistants provide health care by evaluating, monitoring, diagnosing, counseling patients, and through therapeutic and preventive care. Physician assistants were introduced in the 1960s in an effort to reduce health care costs, compensate for the shortage of primary care physicians, and increase access to medical care services. Although the majority of physician assistants work in primary care specialties, they are found in all medical specialties.

Typically, older students with previous health care experience in a related field enroll in physician assistant programs. In 1990, the typical enrollee had almost four years of such experience prior to entering PA training. In order to practice as a physician assistant (PA) in Florida, state law requires that the PA must graduate from an accredited PA program as well as pass the national certification examination for PAs (to sit for which also requires graduation from an accredited PA program).

National Physician Assistant Education

- There had been a continuing shift toward the non-primary care specialties and urban areas. In 1990-91, however, the trend away from primary care reversed. In 1993-94, 58 percent of new PA graduates selected a primary care specialty.
- In 1991, there were 54 accredited PA programs; by 1995, the number of accredited programs increased to 65.
- In 1992-93, 1,181 students graduated from physician assistant programs.

Nationally, in 1993-94, 58% of new PA graduates selected a primary care specialty, reversing a long-term trend away from primary care.

Florida Physician Assistant Education

- The University of Florida (1977 at the baccalaureate level) offers the only public physician assistant program in the State. Currently, the enrollment capacity of the first-year class is 60 students, the largest in the country. There were approximately 900 applicants for the 1995 class. Approximately one-half of the enrollees have baccalaureate degrees.
- Summer enrollments (which include the incoming class entering the 10-month didactic phase and the second-year class in 14 months of clinic work) increased to 90 students in 1994 (Table 27). (The duration of the clinical phase is changing to 12 months.)

Typically, women comprise a majority of enrollments and minority enrollment fluctuates for each representative group but remains relatively strong overall.

- In the entering class of Summer 1994, women and minorities comprised 65 and 17 percent of enrollments respectively. The average age of the students was 31 years, and on the average, students had 3.7 years of prior direct patient care experience. Forty-eight percent of the class had obtained a baccalaureate or higher degree prior to enrolling in the physician assistant program. All of the students were Florida residents.

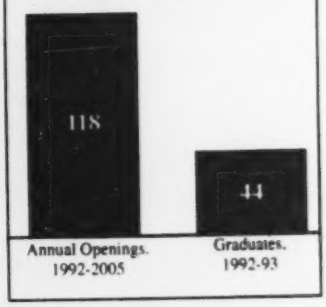
- The number of degrees granted fluctuated between 29 and 44 for the classes graduating between Summer 1990 and 1994, representing the varying size of entering class enrollment (Table 27). Attrition over the five-year time period was low (typically, one student from each class). As with enrollments, women typically comprised a majority of graduates, and minority completions varied yet remained relatively strong overall.

UF PA graduates demonstrate a high first time pass rate on the national certification examination.

- Nearly three-quarters of all the graduates of the University of Florida PA Program who practice clinically currently practice in Florida. Graduates demonstrate a high first time pass rate on the national certification examination. For six of the past seven years, the UF PA Program's pass rate was between 94 and 97 percent, 10 to 14 points above the national level.

- Nova Southeastern University offers the only PA program in the independent sector of higher education (1993). NSU's first class will graduate in 1995.

FIGURE 14
FLORIDA LABOR MARKET: PHYSICIAN ASSISTANTS



Labor Market

- The Florida Department of Labor and Employment Security, Bureau of Labor Market Information, projects that between 1992 and 2005, the number of physician assistants in Florida will increase by 33.1 percent, as compared to national projections for a 28 percent increase between 1988 and 2000 (Table 1). The Bureau projects a total of 118 average annual openings for employment in Florida between 1992 and 2005, based on the projection for expansion of 74 positions and 44 vacancies due to retirement, death, or other separation from the workforce (Figure 14).

PHYSICAL THERAPY

Physical therapy is characterized as an allied health profession. The U.S. Department of Health and Human Services states that physical therapists evaluate and treat patients with movement dysfunctions such as those resulting from accidents, trauma, stroke, multiple sclerosis, cerebral palsy, nerve injuries, amputations, fractures, arthritis, and heart and respiratory diseases. Patients undergo physical therapy to prevent, detect, eliminate, or minimize pain and physical dysfunction. Physical therapists provide in-patient, out-patient, and community-based services for patients, and educate family members to provide therapy at home.

Professional preparation for physical therapists is typically obtained in bachelor's or master's degree programs accredited by the American Physical Therapy Association's (APTA) Commission on Accreditation in Physical Therapy Education. An increasing number of entry level bachelor's degree programs have become master's programs in order to teach the expanding body of knowledge that students must now learn.

National Physical Therapy Education

- In 1990, there were 131 accredited entry-level programs (14 more than in 1986, and 83 more than in 1970). In 1992-93, 5,400 students graduated from physical therapy programs.

- The applicant pool for physical therapy programs has been large. The positive economic outlook for physical therapy, including rising salaries, growing autonomy, and high demand for graduates, appears to account for the adequate supply of applicants.

- Approximately 25 percent of physical therapists are men, and 10 percent are from minority groups.

The positive economic outlook for physical therapy appears to account for an adequate supply of applicants.

Florida Physical Therapy Education

- Physical therapy programs are offered at five public universities: University of Florida, Florida Agricultural and Mechanical University, Florida International University, University of Central Florida, and University of North Florida (the last two of which were founded since 1990). Entry-level physical therapy programs are also offered in the independent sector at the University of Miami, Nova Southeastern University (1994), Barry University (1989), Andrews University, and the Institute of Physical Therapy.

- Upper-level baccalaureate enrollments in the five state university programs more than doubled between 1987 (154 students) and 1993 (361 students), reflecting in part growth in the number of programs (Table 28). In Fall 1993, men accounted for 34.1 percent of enrollments, and minorities for almost 24 percent of enrollments.

- Degrees granted decreased in 1993-94 to 120 from a high in 1992-93 of 157 (Table 28). In 1993-94, men accounted for over 33 percent of degree recipients, and minorities, approximately 20 percent. The percentages of black, Hispanic, and Asian and Pacific Islander degree recipients have fluctuated over the past few years.
- In 1992-93, private institutions granted 93 entry-level degrees in physical therapy.

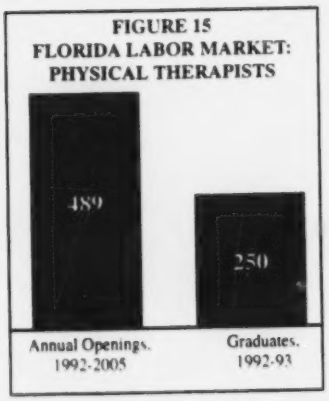


FIGURE 15
FLORIDA LABOR MARKET:
PHYSICAL THERAPISTS

Labor Market

- The Florida Department of Labor and Employment Security, Bureau of Labor Market Information, projects that between 1992 and 2005, the number of physical therapists in Florida will increase by 94.8 percent, as compared to national projections for a 57 percent increase between 1988 and 2000 (Table 1). The Bureau projects a total of 489 average annual openings for employment in Florida between 1992 and 2005, based on the projection for expansion of 403 positions and 86 vacancies due to retirement, death, or other separation from the workforce (Figure 15).

OCCUPATIONAL THERAPY

Occupational therapy is classified as an allied health profession. The U.S. Department of Health and Human Services reports that occupational therapists help physically, mentally, and emotionally disabled individuals develop the skills necessary to diminish or correct pathology, perform daily living and work skills, and promote and maintain health. Their goal is to enable individuals to live as independently and productively as possible by helping patients develop or redevelop the skills needed to perform such daily activities as bathing, dressing, cooking, eating, and working.

Occupational therapists work in a variety of settings. Major employers include hospitals, schools, social services, and private and group practices. Forty-five percent of occupational therapists work in urban areas, 40 percent in suburban areas, and 15 percent in rural areas. The vast majority of occupational therapists are female.

National Occupational Therapy Education

- Basic occupational preparation is offered in programs granting a bachelor's degree, a post-baccalaureate certificate, or a master's degree. In 1994-95, 85 schools offered one or more occupational therapy programs (68 schools in 1989).

Basic occupational preparation is offered in programs granting a bachelor's degree, a post-baccalaureate certificate, or a master's degree.

- Enrollments increased during the 1980s and into the 1990s (11,798 in 1993). Male and minority enrollments have been small; in 1993, men comprised 10.6 percent, blacks comprised four percent, and Hispanics comprised three percent.

- In 1992-93, there were 3,230 graduates from programs offering occupational therapy preparation.

Florida Occupational Therapy Education

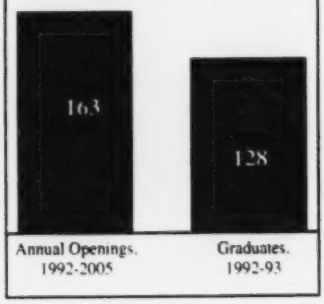
- Basic occupational preparation is offered at three state universities: Florida Agricultural and Mechanical University, Florida International University, and the University of Florida. In the independent sector, entry-level programs are offered at Barry University (1989) and Nova Southeastern University (1995).

- Fall 1993 enrollments in the public programs rose to 262, representing an increase for the past three years (Table 29). Male students comprised nearly 15 percent of total enrollment, and blacks and Hispanics were well represented at 11.4 and 14.9 percent.

- The state university programs granted 115 degrees in 1992-93, for an all time high. Then in 1993-94, degrees granted dropped to 94 (Table 29). Blacks and Hispanics are well represented among graduates. Male representation increased to 12.8 percent among the 1993-94 graduates.

- In 1992-93, Barry University conferred 13 occupational therapy degrees. This represents the first graduating class for the program that was initiated in 1989. Nova Southeastern University will graduate its first class in 1997.

FIGURE 16
FLORIDA LABOR MARKET:
OCCUPATIONAL THERAPISTS



Labor Market

- The Florida Department of Labor and Employment Security, Bureau of Labor Market Information, projects that between 1992 and 2005, the number of occupational therapists in Florida will increase by 74.6 percent, as compared to national projections for a 49 percent increase between 1988 and 2000 (Table 1). The Bureau projects a total of 163 average annual openings for employment in Florida between 1992 and 2005, based on the projection for expansion of 128 positions and 35 vacancies due to retirement, death, or other separation from the workforce (Figure 16).

DENTAL AUXILIARIES

Dental hygienists function as oral health educators and clinicians whose primary responsibility is providing preventive oral hygiene services and procedures to assist the public in maintaining optimum oral health. The type and frequency of specific duties vary according to the state in which they practice, the level of their education and experience, and the health care setting. Dental assistants provide chair-side assisting and supportive services, such as sterilizing equipment, transferring instruments during operative procedures, taking impressions of study casts, placing and removing periodontal dressings, exposing x-rays, preparing dental filling materials, providing oral hygiene instruction and performing selected laboratory and clerical office procedures. In addition to performing chair-side assisting procedures, they provide general management functions within the dental office environment as well. Dental hygienists are licensed by the State, whereas, dental assistants are not. Many variables affect the demand for dental auxiliary personnel, but the primary determinants will be the number of dentists and the demand for dental services.

Many variables affect the demand for dental auxiliary personnel, but the primary determinants will be the number of dentists and the demand for dental services.

Dental hygienists employed in private dental offices provide direct patient care for an average of eight patients per day, or usually one patient scheduled per hour. Dental hygienists also practice in nontraditional practice settings such as public health agencies, clinics, hospitals, dental colleges, health maintenance organizations, and business and industry. They are increasingly moving into areas with special populations such as V.A. hospitals, day care clientele, homehealth care, and geriatric centers.

The dental hygiene education curriculum encompasses a two-year, associate degree program within an accredited postsecondary institution. Graduates from Florida programs are eligible to take the National Board Examination and the State Board examination to become licensed dental hygienists.

Dental assistants may be formally trained in certificate programs through vocational education centers, community college programs, or one of the few independent dental assisting certificate programs located within the State. In response to legislative action, the State of Florida mandated in 1989 that all dental assisting programs in the State be leveled to postsecondary adult vocational education to eliminate unnecessary duplication of programs. Articulation arrangements permit the transfer of postsecondary adult vocational education courses to college credit dental hygiene or other appropriate

Associate degrees granted in dental hygiene rose steadily during the mid-1980s. Hispanics are the only well-represented minority group.

programs. Effective July 1989, no academic credit can be awarded for dental assisting studies. Dental assistants may also receive on-the-job training through employment opportunities.

Florida Dental Auxiliary Education

- Enrollments in dental hygiene programs at public community colleges have been increasing since the mid-1980s with only slight fluctuation (Table 30). Enrollments are predominately female, with only 2.2 percent male participation in 1992-93. Hispanic students constituted the only well-represented minority group at 12.2 percent in 1992-93.

- Associate degrees granted in dental hygiene rose steadily during the mid-1980s to 275 from public programs in 1992-93 (Table 30). Men received less than two percent of the degrees granted during each of the past six years. Hispanics are the only well-represented minority group (10.5 percent in 1992-93). Thirty-six associate degrees were granted from independent programs in 1992-93.

- Dental assistant program enrollments at Florida district vocational centers have fluctuated during the past six years; enrollments were 785 in 1992-93 (Table 31). Male, black, and Hispanic enrollments were high at 28.2, 9.6, and 25.7, respectively, in 1992-93.

- Completions in dental assistant programs rose to 143 in 1992-93 (Table 31). In contrast to enrollments, men and Hispanics comprised only 1.4 and 5.6 percent of completers in 1992-93.

Labor Market

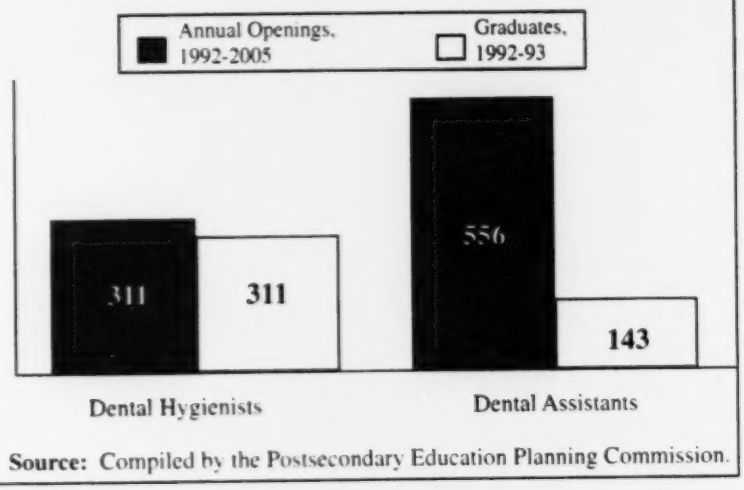
- The Florida Department of Labor and Employment Security, Bureau of Labor Market Information, projects that between 1992 and 2005, the number of dental hygienists and dental assistants in Florida will increase by 46.9 and 44.0 percent, respectively, as compared to national projections for 18 and 19 percent increases between 1988 and 2000 (Table 1). The Bureau projects a total of:

    - 311 average annual openings for dental hygienists in Florida between 1992 and 2005, based on the projection for expansion of 226 positions and 85 vacancies due to retirement, death, or other separation from the workforce (Figure 17), and,

- 556 average annual openings for dental assistants in Florida between 1992 and 2005, based on the projection for expansion of 330 positions and 226 vacancies due to retirement, death, or other separation from the workforce (Figure 17).

FIGURE 17

FLORIDA LABOR MARKET: DENTAL AUXILIARIES



Source: Compiled by the Postsecondary Education Planning Commission.

Many dental assistants receive training on the job.

APPENDIX A

POSTSECONDARY EDUCATION PLANNING COMMISSION

FORMAL REPORTS ON HEALTH PROFESSIONS

EDUCATION PROGRAMS

THE COST OF MEDICAL, DENTAL, AND VETERINARY MEDICAL EDUCATION -- January, 1992 (Prepared in response to Specific Appropriation 577A of the 1991 General Appropriations Act)

FLORIDA HEALTH PROFESSIONS EDUCATION PROFILES -- February 21, 1991 (Prepared in response to Specific Appropriation 634B of the 1990 General Appropriations Act)

PUBLIC HEALTH EDUCATION IN FLORIDA -- January 19, 1989 (Prepared in response to Specific Appropriation 526 of the 1988 General Appropriations Act)

DENTAL EDUCATION IN FLORIDA -- February 16, 1989 (Prepared in response to Specific Appropriation 526 of the 1988 General Appropriations Act)

NURSING EDUCATION IN FLORIDA -- February 25, 1988 (Prepared in response to Specific Appropriation 537 of the 1987 General Appropriations Act)

COMPREHENSIVE HEALTH PROFESSIONS PLAN REVIEW FOR FLORIDA -- February 25, 1988 (Prepared in response to Specific Appropriation 537 of the 1987 General Appropriations Act)

VETERINARY MEDICAL EDUCATION IN FLORIDA -- February 19, 1987 (Prepared in response to Specific Appropriation 521 of the 1986 General Appropriations Act)

PHARMACY EDUCATION IN FLORIDA -- February 19, 1987 (Prepared in response to Specific Appropriation 521 of the 1986 General Appropriations Act)

ALLIED HEALTH EDUCATION IN FLORIDA -- January 31, 1986 (Prepared in response to Specific Appropriation 512 of the 1985 General Appropriations Act)

MEDICAL EDUCATION IN FLORIDA -- January 10, 1985 (Prepared in response to Appropriation Item 496 of the 1984 General Appropriations Act)

DENTAL EDUCATION IN FLORIDA -- February 29, 1984 (Prepared in response to Appropriation Item 450 of the 1983 General Appropriations Act)

THE NEED FOR CHIROPRACTIC EDUCATION IN FLORIDA -- May 8, 1984 (Prepared in response to Appropriation Item 450 of the 1983 General Appropriations Act)

I) OUTLINE OF A COMPREHENSIVE HEALTH PROFESSIONS EDUCATION PLAN FOR THE STATE (II) THE COLLECTION AND MAINTENANCE OF HEALTH MANPOWER INFORMATION IN FLORIDA -- February 28, 1983 (This report is one in the series of Health Professions Reports prepared in response to Appropriation Item 369 of the 1982 General Appropriations Act)

A STUDY OF THE NEED FOR NEW AND EXPANDED PROGRAMS IN NURSING IN FLORIDA -- February 28, 1983 (This report is one in the series of Health Professions Reports prepared in response to Appropriation Item 369 of the 1982 General Appropriations Act)

A STUDY OF THE NEED FOR NEW AND EXPANDED PROGRAMS IN PUBLIC HEALTH IN FLORIDA -- February 28, 1983 (This report is one in the series of Health Professions reports prepared in response to Appropriation Item 369 of the 1982 General Appropriations Act)

POSTSECONDARY EDUCATION PLANNING COMMISSION
Florida Education Center
(Room 231, Collins Building)
(904) 488-7894, Suncom 278-7894
FAX: (904) 922-5388

APPENDIX B

ENROLLMENTS, COMPLETIONS, AND WORKFORCE

TABLES

TABLE 1
LABOR MARKET: SUPPLY AND DEMAND PROJECTIONS FOR SELECTED HEALTH PROFESSIONS

Health Professions	Total # Active Licenses in Florida 1993[a]	Number per 100,000 Population in Florida 1993[b]	Number per 100,000 Population in the U.S. 1990[c]	Projected Percentage Increases, Florida 1992-2005[d]	Projected Percentage Increases, U.S. 1988-2000[e]	Average Annual Openings, FL 1992-2005[d]	Approximate Number of Florida Graduates 1992-1993[f]
Physicians	---	---	---	35.6	28	1,304	445
Allopathic	28,539	208.1	218*	---	---	---	342
Osteopathic	1,962	14.3	12.4	---			103
Chiropathic	3,002	21.9	18.0	29.5	---	149	---
Dentists	7,558	55.1	59.5	7.9	13	274	62
Veterinarians	---	---	20.4	37.9	26	206	74
Pharmacists	10,770	78.5	64.7	31.9	27	317	260
Public Health	---	---	---	---	---	---	100
Registered Nurses	119,982	875.0	671*	46.0	39	5,082	4,558
Licensed Practical Nurses	42,906	312.9	---	44.9	37	2,155	2,268
Nursing Assistants	---	---	---	44.2	32	2,610	3,109
Physician Assistants	1,136	8.3	8.8**	33.1	28	118	44
Physical Therapists	6,609	48.2	28.4	94.8	57	489	250
Occupational Therapists	2,797	20.4	15.1	74.6	49	163	128
Dental Hygienists	5,791	42.2	32.4	46.9	18	311	311
Dental Assistants	---	---	1.34	44.0	19	556	143

Sources:

a. Agency for Health Care Administration, State Center for Health Statistics, 1993 Florida Health Care Atlas.
b. Agency for Health Care Administration, State Center for Health Statistics, 1993 Florida Health Care Atlas, based on 1993 estimated population of 13.7 million.
c. Eighth Report of the President and Congress on the Status of Health Personnel in the United States (1992); * = data for 1989, ** = data for 1991.
d. Florida Department of Labor and Employment Security, Bureau of Labor Market Information, 1994.
e. U.S. Department of Labor, Bureau of Labor Statistics, 1990.
f. Board of Regents, State Board of Community Colleges, Division of Applied Technology and Adult Education; State board of Independent Colleges and Universities; and individual institution reports, 1993.

TABLE 2

NATIONAL FIRST-YEAR NEW ENTRANTS, TOTAL ENROLLMENTS AND GRADUATES FOR MEDICAL SCHOOLS, 1986-87 to 1992-93

	First-Year New Entrants	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	16,307	58.0	42.0	7.8	6.0	16.4
1991-92	16,289	58.4	41.6	7.4	6.2	15.5
1990-91	16,211	60.3	39.7	6.6	5.8	16.3
1989-90	15,998	61.5	38.5	6.6	5.3	15.2
1988-89	15,867	62.0	38.0	6.4	5.5	13.5
1987-88	15,969	63.2	36.8	6.2	5.4	12.6
1986-87	15,927	63.8	36.2	6.2	5.3	11.2

	Total Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	66,629	59.7	40.3	7.4	6.0	16.1
1991-92	66,142	60.6	39.4	7.0	5.8	15.1
1990-91	65,602	61.9	38.1	6.6	5.6	14.4
1989-90	65,163	62.7	37.3	6.5	5.4	12.9
1988-89	65,016	63.8	36.2	6.4	5.4	11.5
1987-88	65,300	64.8	35.2	6.1	5.5	10.1
1986-87	65,735	65.7	34.3	6.0	5.4	8.7

	Graduates	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	15,466	62.0	38.0	6.1	5.3	13.1
1991-92	15,365	63.9	36.1	5.5	5.5	12.5
1990-91	15,427	64.0	36.0	6.0	5.4	10.9
1989-90	15,398	66.0	34.0	5.7	5.3	9.3
1988-89	15,630	66.6	33.4	5.3	5.5	7.9
1987-88	15,919	67.2	32.8	5.3	5.2	7.0
1986-87	15,830	67.7	32.3	5.2	4.8	6.0

Source: Association of American Medical Colleges, 1993.

TABLE 3

FLORIDA FIRST-YEAR ALLOPATHIC MEDICAL EDUCATION ENROLLMENTS: TOTAL NUMBERS AND PERCENTAGE DISTRIBUTION BY GENDER AND RACE/ETHNICITY, FALL 1990 TO FALL 1994

FIRST-YEAR ENROLLMENTS	FALL 1990	FALL 1991	FALL 1992	FALL 1993	FALL 1994
UF - TOTAL NUMBER	115	120	122	117	117
Women	43.5%	35.8%	37.7%	43.6%	39.3%
Black	5.2%	2.5%	4.9%	6.8%	7.7%
Hispanic	4.3%	4.2%	2.5%	4.3%	4.3%
Asian & Pacific Islander	10.4%	5.8%	7.4%	12.8%	18.8%
USF - TOTAL NUMBER	97	97	98	100	102
Women	34.0%	40.2%	33.7%	35.0%	37.3%
Black	7.2%	5.2%	4.1%	5.0%	5.9%
Hispanic	8.2%	8.2%	12.2%	9.0%	8.8%
Asian & Pacific Islander	13.4%	12.4%	14.3%	8.0%	10.8%
UM - TOTAL NUMBER	129	142	144	144	145
Women	38.0%	35.9%	45.1%	45.1%	45.55
Black	6.2%	9.2%	10.4%	9.7%	9.0%
Hispanic	20.2%	18.3%	20.1%	15.3%	14.5%
Asian & Pacific Islander	14.7%	14.8%	13.9%	22.2%	18.6%

Source: Institutional Reports to the Board of Regents, Office of Health Affairs.

TABLE 4

FLORIDA STATE UNIVERSITY PROGRAM IN MEDICAL SCIENCES (PIMS) FIRST-YEAR ENROLLMENTS BY GENDER AND RACE/ETHNICITY FALL 1987 TO FALL 1993

Annual Enrollment		Male %	Female %	Black %	Hispanic %	Other %
1993	31	51.6	48.4	----	----	9.7
1992	29	79.3	20.7	----	6.9	10.3
1991	29	65.5	34.5	3.4	3.4	3.4
1990	30	53.3	46.7	10.0	3.3	10.0
1989	27	59.3	40.7	3.7	3.7	7.4
1988	29	72.4	27.6	----	3.4	10.3
1987	29	48.3	51.7	---	10.3	3.4

Source: Florida State University Program in Medical Sciences, 1993.

TABLE 5

TOTAL FALL ENROLLMENTS AT FLORIDA MEDICAL SCHOOLS, BY GENDER AND RACE/ETHNICITY 1987 TO 1994

UNIVERSITY OF FLORIDA

	Total	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1994	465	40.0	5.4	4.7	10.8
1993	452	40.5	4.9	4.9	8.9
1992	457	41.1	4.8	4.6	7.2
1991	457	40.0	5.3	4.8	7.7
1990	456	41.2	6.1	5.9	9.0
1989	458	41.3	7.2	9.4	5.9
1988	456	36.4	7.0	5.9	10.1
1987	454	34.6	6.8	5.5	8.6

UNIVERSITY OF SOUTH FLORIDA

	Total	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1994	381	36.5	4.5	10.0	12.3
1993	380	35.8	5.0	9.7	12.4
1992	383	36.3	4.7	9.9	12.0
1991	383	35.8	4.2	9.1	11.0
1990	377	33.7	4.0	10.0	9.3
1989	377	31.8	2.4	10.3	6.1
1988	381	31.8	1.8	11.3	4.5
1987	382	30.6	1.6	12.0	3.4

UNIVERSITY OF MIAMI

	Total	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1994	586	41.6	8.4	17.4	18.3
1993	581	39.2	7.9	19.8	16.4
1992	567	37.6	8.5	17.6	16.8
1991	561	32.3	7.1	18.2	11.9
1990	553	33.6	7.1	16.3	10.0
1989	565	34.7	7.3	15.9	8.1
1988	578	35.5	6.9	15.4	7.3
1987	631	32.5	4.6	13.2	6.5

TABLE 6

STATE UNIVERSITY SYSTEM COLLEGES OF MEDICINE DEGREES GRANTED BY GENDER AND RACE/ETHNICITY 1987-88 TO 1993-94

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993-94	194	61.9	38.1	5.7	6.2	12.4
1992-93	208	57.2	42.8	4.8	7.2	6.3
1991-92	203	65.5	34.5	3.9	6.4	9.4
1990-91	194	65.5	34.5	4.1	8.2	7.2
1989-90	209	64.6	35.4	5.3	7.2	7.7
1988-89	198	68.7	31.3	4.5	9.6	5.6
1987-88	198	69.2	30.8	4.5	7.6	3.5

Source: Board of Regents, Student Data Course File, 1994.

TABLE 7
FLORIDA MEDICAL SCHOOL GRADUATES BY SPECIALTY: 1988, 1990, 1992, AND 1994

TOTAL	JUNE 1988			JUNE 1990			JUNE 1992			JUNE 1994		
	334			357			340			333		
	USF	UF	UM	USF	UF	UM	USF	UF	UM	USF	UF	UM
	91	108	135	93	116	148	89	114	137	92	103	138
Urology	0	0	0	1	0	2	1	3	1	0	0	1
General & Internal*	32	29	46	30	28	44	16	26	18	14	33	38
Allergies & Endomology	0	0	0	0	0	0	0	0	0	0	0	0
Colon & Rectal	0	0	0	0	0	0	0	0	0	0	0	0
Dermatology	0	0	0	0	2	0	1	1	0	0	0	0
Emergency Medical	2	0	1	2	0	0	3	2	1	5	4	4
Family Practice*	10	16	10	6	8	13	8	19	6	21	11	16
Geriatrics	0	0	0	0	0	0	0	0	0	0	0	0
Immunology	0	0	0	0	0	0	0	0	0	0	0	0
Neurological Surgery	1	2	0	1	1	1	0	0	1	0	1	0
Ob-Gyn*	5	5	10	9	7	18	6	12	16	7	9	9
Ophthalmology	2	0	0	1	0	2	0	0	4	3	0	2
Orthodontic Surgery	0	0	0	0	0	0	0	2	0	0	0	0
Orthopedic Surgery	2	6	4	4	7	3	1	0	4	2	3	5
Otolaryn/ Otorhinolaryngology	2	3	0	1	1	1	2	1	4	0	0	1
Anesthesiology	1	3	1	4	3	12	11	3	18	4	0	5
Pathology	2	4	3	0	4	2	1	0	7	1	1	4
Pediatrics*	12	18	13	10	15	15	18	11	11	14	14	12
Phys. Med & Rehab.	2	0	0	1	1	2	1	1	0	0	0	0
Plastic Surgery	0	0	0	0	0	0	0	0	0	0	0	1
Preventive Medicine	0	0	0	0	0	0	0	0	0	0	0	0
Psychiatry	3	5	8	8	10	3	9	4	5	4	1	2
Neurology	1	0	0	0	0	0	0	0	1	2	0	6
Radiology	6	4	2	0	3	7	9	8	8	3	5	8
Surgery	9	10	32	10	15	23	2	13	15	8	15	19
Thoracic Surgery	0	0	0	0	0	0	0	0	0	0	0	0

Note: * = Primary Care Specialty.
Source: Board of Regents Office of Health Affairs.

TABLE 8

FLORIDA MEDICAL SCHOOL GRADUATES AND LOCATION OF RESIDENCY

MEDICAL SCHOOL GRADUATES		Serving residency in...					
June 1988	Total Grads	FL	%	SREB	%	Other	%
All Institutions	334	137	41.0%	76	22.8%	118	35.3%
USF	91	42	46.2%	14	15.4%	35	38.5%
UF	108	45	41.7%	33	30.6%	29	26.9%
UM	135	50	37.0%	29	21.5%	54	40.0%
Public	199	87	43.7%	47	23.6%	64	32.2%
Private	135	50	37.0%	29	21.5%	54	40.0%
MEDICAL SCHOOL GRADUATES		**Serving residency in...**					
June 1990	Total Grads	FL	%	SREB	%	Other	%
All Institutions	357	153	42.9%	95	26.6%	109	30.5%
USF	93	38	40.9%	27	29.0%	28	30.1%
UF	116	44	37.9%	37	31.9%	35	30.2%
UM	148	71	48.0%	31	21.0%	46	31.1%
Public	209	82	39.2%	64	30.6%	63	30.1%
Private	148	71	48.0%	31	21.0%	46	31.1%

TABLE 8 (cont.)

FLORIDA MEDICAL SCHOOL GRADUATES AND LOCATION OF RESIDENCY

MEDICAL SCHOOL GRADUATES		Serving residency in...					
June 1992	Total Grads	FL	%	SREB	%	Other	%
All Institutions	340	164	48.2%	89	26.2%	87	25.6%
USF	89	44	49.4%	28	31.5%	17	19.1%
UF	114	56	49.1%	32	28.1%	26	22.8%
UM	137	64	46.7%	29	21.2%	44	32.1%
Public	203	100	49.3%	60	29.6%	43	21.2%
Private	137	61	46.7%	29	21.2%	44	32.1%
MEDICAL SCHOOL GRADUATES		**Serving residency in...**					
June 1994	Total Grads	FL	%	SREB	%	Other	%
All Institutions	333	143	42.9%	108	32.4%	77	23.1%
USF	92	44	47.8%	27	29.3%	20	21.7%
UF	103	45	43.7%	35	34.0%	19	18.4%
UM	138	54	39.1%	46	33.3%	38	27.5%
Public	195	89	45.6%	62	31.8%	39	20.0%
Private	138	54	39.1%	46	33.3%	38	27.5%

Source: Board of Regents, Office of Health Affairs. Compiled by the Postsecondary Education Planning Commission.

TABLE 9

NATIONAL FIRST-YEAR ENROLLMENTS, TOTAL ENROLLMENTS AND GRADUATES FOR SCHOOLS OF OSTEOPATHIC MEDICINE, 1986-87 TO 1992-93

	First-Year Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	2,035	64.9	35.1	4.0	4.4	10.3
1991-92	1,974	67.3	32.7	3.4	3.4	11.4
1990-91	1,950	65.8	34.2	4.1	4.0	11.0
1989-90	1,844	67.9	32.1	3.7	4.3	8.6
1988-89	1,780	67.9	32.1	4.8	4.6	7.7
1987-88	1,692	71.0	29.0	2.2	3.5	6.4
1986-87	1,724	72.7	27.3	1.5	3.2	4.2

	Total Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	7,375	65.9	34.1	3.1	4.0	10.1
1991-92	7,012	66.6	33.4	3.4	3.9	9.8
1990-91	6,792	67.3	32.7	3.2	4.1	8.6
1989-90	6,615	68.9	31.1	2.6	3.7	7
1988-89	6,614	70.0	30.0	2.4	3.6	5.8
1987-88	6,586	71.1	28.9	1.9	3.2	4.4
1986-87	6,640	72.1	27.9	1.8	2.7	3.6

	Graduates	Male %	Female %
1992-93	1,609	66.2	33.8
1991-92	1,532	67.3	32.7
1990-91	1,534	70.1	29.9
1989-90	1,529	71.8	28.2
1988-89	1,609	69.5	30.5
1987-88	1,572	72.1	27.9
1986-87	1,587	74.0	26.0

Source: American Association of Colleges of Osteopathic Medicine, 1993.

TABLE 10

NOVA SOUTHEASTERN UNIVERSITY OSTEOPATHIC MEDICAL EDUCATION TOTAL ENROLLMENTS AND GRADUATES BY GENDER AND RACE/ETHNICITY

	Total Enrollments	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	493	32.5	5.9	13.6	7.7
1991-92	463	31.1	5.0	12.5	8.0
1990-91	426	30.0	4.5	12.0	6.6
1989-90	407	26.3	3.9	10.8	5.7
1988-87	402	24.1	2.5	10.0	5.2
1987-88	400	22.0	2.0	9.0	2.8

	Graduates	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1994	112	65.2	34.8	4.5	12.5	8.9
1993	103	67.0	33.0	4.9	13.6	2.9
1992	98	71.4	28.6	5.1	12.2	9.2
1991	93	76.3	23.7	---	9.7	5.4
1990	93	76.3	24.7	1.1	9.7	5.7
1989	99	76.8	23.2	1.0	12.1	2.0
1988	97	77.3	22.7	2.1	5.2	1.0
1987	68	75.0	25.0	1.5	4.4	1.5
1986	61	77.0	23.0	---	1.6	1.6
1985	35	82.9	17.1	2.9	---	2.9

Source: Southeastern University of the Health Sciences and American Association of Colleges of Osteopathic Medicine, 1994.

TABLE 11

NATIONAL FIRST-YEAR ENROLLMENTS, TOTAL ENROLLMENTS AND GRADUATES FOR SCHOOLS OF DENTISTRY 1984-85 TO 1992-93

	First-Year Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	4,072	64.8	35.2	6.8	5.1	18.0
1991-92	4,047	63.7	36.3	6.3	6.8	17.7
1990-91	4,001	62.0	38.0	6.6	7.0	16.0
1989-90	3,979	65.6	34.4	6.6	7.1	16.3
1988-89	4,196	66.8	33.2	6.9	7.5	16.2
1987-88	4,370	67.7	32.3	6.4	8.2	14.6
1986-87	4,554	69.5	30.5	6.3	6.9	11.0
1985-86	4,843	72.7	27.3	5.8	6.4	10.2
1984-85	5,047	72.9	27.1	5.9	5.2	9.2

	Total Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	15,980	63.7	36.3	5.9	7.2	16.6
1991-92	15,882	64.4	35.6	5.7	7.5	16.3
1990-91	15,951	65.6	34.4	5.9	7.9	15.8
1989-90	16,412	67.4	32.6	6.0	7.8	14.6
1988-89	17,094	69.2	30.8	5.8	7.5	13.6
1987-88	17,885	70.6	29.4	5.6	6.7	11.7
1986-87	18,673	72.9	27.1	5.5	5.9	9.7
1985-86	19,563	74.7	25.3	5.2	5.3	8.6
1984-85	20,588	76.2	23.8	5.0	4.6	7.7

	Graduates	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	3,918	66.6	33.4	4.4	7.6	16.3
1991-92	3,995	67.5	32.5	5.1	8.7	14.4
1990-91	4,233	69.2	30.8	5.1	7.6	12.4
1989-90	4,312	72.4	27.6	4.5	6.9	12.1
1988-89	4,581	72.4	27.6	5.0	4.8	10.0
1987-88	4,744	75.9	24.1	4.5	4.9	8.3
1986-87	4,957	77.9	22.1	3.9	4.2	7.7
1985-86	5,353	78.7	21.3	4.2	4.0	7.1
1984-85	5,337	80.1	19.9	4.1	3.6	5.7

Source: American Dental Association, 1993.

TABLE 12

UNIVERSITY OF FLORIDA COLLEGE OF DENTISTRY
TOTAL ENROLLMENTS AND DEGREES GRANTED BY GENDER
AND RACE/ETHNICITY

	Fall Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993	301	63.1	36.9	7.0	16.9	7.6
1992	286	62.9	37.1	7.0	16.1	8.0
1991	282	64.2	35.8	5.0	16.7	8.2
1990	287	62.0	38.0	5.2	16.4	8.0
1989	293	62.5	37.5	5.5	17.4	7.2
1988	286	65.7	34.3	4.9	19.2	5.2
1987	290	67.2	32.8	5.2	19.3	4.8

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993-94	66	63.6	36.4	1.5	13.6	7.6
1992-93	62	58.1	41.9	4.8	9.7	9.7
1991-92	69	65.2	34.8	4.3	20.3	8.7
1990-91	69	60.9	39.1	7.2	17.4	8.7
1989-90	67	64.2	35.8	6	20.9	4.5
1988-89	59	72.9	27.1	1.7	22	3.4
1987-88	71	66.2	33.8	7	14.1	4.2

Source: Board of Regents, Student Data Course File, 1994.

TABLE 13

NATIONAL FIRST-YEAR ENROLLMENTS, TOTAL ENROLLMENTS AND D.V.M. DEGREES GRANTED IN VETERINARY MEDICINE, 1987-88 THROUGH 1992-93

	First-Year Enrollments	Male %	Female %	White %	Minority %
1992-93	1,603	33.3	66.7	94.0	6.0
1991-92	1,584	35.0	65.0	94.9	5.1
1990-91	1,569	37.1	62.9	94.7	5.3
1989-90	1,607	37.3	62.7	93.7	6.3
1988-89	1,597	39.7	60.3	95.4	4.6
1987-88	1,642	42.3	57.7	95.6	4.4

	Total Enrollments	Male %	Female %	White %	Minority %
1992-93	8628	36.1	63.9	92.4	7.6
1991-92	8440	37.9	62.1	92.5	7.5
1990-91	8420	39.9	60.1	92.5	7.5
1989-90	8523	40.9	59.1	92.8	7.2
1988-89	8644	42.7	57.3	93.2	6.8
1987-88	8822	44.9	55.1	93.6	6.4

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	2,074	37.8	62.2	2.1	2.9	1.7
1991-92	2,022	40.9	59.1	2.6	2.9	1.5
1990-91	2,021	43.0	57.0	2.9	2.2	1.7
1989-90	2,117	42.3	57.7	2.1	2.1	1.3
1988-89	2,142	44.9	55.1	1.6	2.2	1.7
1987-88	2,180	49.1	50.9	2.0	1.7	1.3

Note: Totals include U.S. residents at U.S. veterinary medical colleges only.
Source: Association of American Veterinary Medical Colleges, 1993.

TABLE 14

UNIVERSITY OF FLORIDA COLLEGE OF VETERINARY MEDICINE TOTAL ENROLLMENTS AND DEGREES GRANTED BY GENDER AND RACE/ETHNICITY

	Fall Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993	312	32.1	67.9	3.2	6.4	0.6
1992	312	33.0	67.0	2.6	4.8	1.0
1991	317	35.0	65.0	2.2	4.7	0.9
1990	323	37.8	62.2	1.9	5.6	0.6
1989	317	40.1	59.9	2.8	6.9	0.3
1988	312	41.0	59.0	2.2	6.7	1.0
1987	314	43.6	56.4	2.2	5.7	1.3

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993-94	75	33.3	66.7	2.7	2.7	---
1992-93	74	35.1	64.9	1.4	6.8	1.4
1991-92	80	38.8	61.2	1.3	6.3	---
1990-91	70	40.0	60.0	1.4	7.1	---
1989-90	74	44.6	55.6	2.7	8.1	---
1988-89	77	39.0	61.0	---	5.2	3.9
1987-88	77	49.4	50.6	1.3	3.9	1.3

Source: Board of Regents, Student Data Course File, 1994.

TABLE 15

TOTAL ENROLLMENTS AND DEGREES GRANTED IN ENTRY-LEVEL* PHARMACY DEGREE PROGRAMS IN THE UNITED STATES 1986 THROUGH 1992

	Total Fall Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992	31,519	36.6	63.4	7.4	3.5	13.1
1991	30,314	37.0	63.0	7.9	3.5	11.7
1990	29,797	37.6	62.4	7.1	3.8	11.2
1989	29,428	38.4	61.6	6.8	3.8	9.3
1988	28,304	39.3	60.7	6.7	3.8	8.3
1987	26,945	40.0	60.0	6.4	3.9	7.4
1986	25,643	41.4	58.6	6.4	4.0	6.8

	Entry-Level Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1991-92	7,113	37.9	62.1	5.4	4.1	10.8
1990-91	7,122	38.0	62.0	4.9	4.0	10.5
1989-90	6,956	40.0	60.0	5.3	3.7	8.4
1988-89	6,560	40.0	60.0	4.7	3.8	6.9
1987-88	6,184	41.5	58.5	4.6	4.0	5.4
1986-87	5,854	43.1	56.9	5.1	4.4	6.3
1985-86	5,800	45.7	54.3	5.3	3.7	5.7

Note: Entry-level = Baccalaureate and PharmD degrees.
Source: American Association of Colleges of Pharmacy, 1993.

TABLE 16

STATE UNIVERSITY SYSTEM COLLEGES OF PHARMACY
ENTRY-LEVEL PHARMACY DEGREES GRANTED
BY GENDER AND RACE/ETHNICITY
1987-88 TO 1993-94

	Baccalaureate Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993-94	79	27.8	72.2	44.3	1.3	---
1992-93	78	35.9	64.1	41.0	3.8	2.6
1991-92	77	32.5	67.5	40.3	2.6	9.1
1990-91	73	49.3	50.7	17.8	5.5	8.2
1989-90	97	38.1	61.9	35.1	7.2	1.0
1988-89	87	33.3	66.7	27.6	6.9	---
1987-88	43	41.9	58.1	41.9	9.3	--

	PharmD Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993-94	82	35.4	64.6	28.0	7.3	6.1
1992-93	66	39.4	60.6	4.5	6.1	10.6
1991-92	74	33.8	66.2	18.9	12.2	8.1
1990-91	65	41.5	58.5	18.5	12.3	9.2
1989-90	49	42.9	57.1	12.2	6.1	16.3
1988-89	62	33.9	66.1	24.2	9.7	---
1987-88	50	36.0	64.0	14.0	18.0	---

Source: Board of Regents, Student Data Course File, 1994.

TABLE 17

NOVA SOUTHEASTERN UNIVERSITY
COLLEGE OF PHARMACY ENTRY-LEVEL
DEGREES GRANTED BY GENDER AND RACE/ETHNICITY

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993-94	86	51.2	48.8	9.3	25.6	3.5
1992-93	116	48.3	51.7	4.3	20.7	9.5
1991-92	85	40.0	60.0	5.9	32.9	10.6
1990-91	35	51.4	48.6	2.9	20.0	---
1989-90	24	37.5	62.5	---	8.3	50.0

Source: Nova Southeastern University, 1995.

TABLE 18

STATE UNIVERSITY SYSTEM PUBLIC HEALTH PROGRAMS TOTAL MASTER LEVEL ENROLLMENTS AND DEGREES GRANTED BY GENDER AND RACE/ETHNICITY

	Fall Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993	389	33.2	66.8	10.8	8.5	3.9
1992	323	34.4	65.6	11.5	7.4	5.3
1991	338	32.5	67.5	13.0	8.9	3.8
1990	288	30.9	69.1	13.5	9.4	1.4
1989	196	28.6	71.4	14.3	13.3	3.6
1988	257	29.2	70.8	10.9	8.2	2.3
1987	244	35.2	64.8	12.3	7.4	3.3

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993-94	124	36.3	63.7	4.8	8.9	2.4
1992-93	95	30.5	69.5	25.3	11.6	5.3
1991-92	88	33.0	67.0	12.5	5.7	1.1
1990-91	78	24.4	75.6	12.8	15.4	1.3
1989-90	58	29.3	70.7	8.6	6.9	1.7
1988-89	78	28.2	71.8	6.4	11.5	---
1987-88	49	32.7	67.3	8.2	8.2	---

Source: Board of Regents, Student Data Course File, 1994.

TABLE 19

UNIVERSITY OF SOUTH FLORIDA
COLLEGE OF PUBLIC HEALTH
DOCTORAL DEGREES GRANTED BY GENDER AND RACE/ETHNICITY

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993-94	6	33.3	66.7	16.7	---	---
1992-93	3	---	100.0	---	---	---

Source: Board of Regents, Student Data Course File, 1994.

TABLE 20

STATE UNIVERSITY SYSTEM REGISTERED NURSING PROGRAMS TOTAL UPPER LEVEL BACCALAUREATE ENROLLMENTS AND DEGREES GRANTED BY GENDER AND RACE/ETHNICITY

	Fall Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993	1,986	13.7	86.3	14.0	8.2	3.6
1992	2,031	11.8	88.2	13.7	6.7	3.1
1991	1,931	10.3	89.7	13.6	6.9	3.4
1990	1,817	8.7	91.3	14.0	7.0	3.2
1989	1,749	7.3	92.7	14.2	6.5	2.6
1988	1,593	6.3	93.7	12.5	5.6	1.8
1987	1,668	5.2	94.8	11.0	6.1	1.7

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993-94	808	11.4	88.6	11.5	6.9	2.1
1992-93	1,064	10.2	89.8	17.1	8.6	3.5
1991-92	730	10.3	89.7	11.8	6.0	3.6
1990-91	715	6.3	93.7	14.3	6.7	2.7
1989-90	669	7.3	92.7	12.1	5.8	1.8
1988-89	616	5.5	94.5	8.1	6.3	---
1987-88	545	5.3	94.7	9.5	6.6	---

Source: Board of Regents, Student Data Course File, 1994.

TABLE 21

FLORIDA PUBLIC COMMUNITY COLLEGE REGISTERED NURSING PROGRAMS TOTAL ENROLLMENTS AND DEGREES GRANTED BY GENDER AND RACE/ETHNICITY 1987-88 TO 1992-93

	Total Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	9,845	15.0	85.0	11.7	6.3	2.1
1991-92	9,293	13.8	86.2	13.0	6.0	2.0
1990-91	7,896	12.0	88.0	12.0	4.8	1.6
1989-90	7,330	11.7	88.3	13.2	5.6	1.4
1988-89	6,428	9.8	90.2	13.7	5.7	1.5
1987-88	5,866	8.8	91.2	14.3	5.7	1.4

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	2,893	12.7	87.3	9.2	4.6	1.7
1991-92	2,729	13.7	86.3	9.5	5.2	1.6
1990-91	2,415	11.5	88.5	10.7	4.8	1.3
1989-90	2,085	9.4	90.6	10.5	6.0	1.1
1988-89	1,944	7.4	92.6	12.0	4.5	1.9
1987-88	1,858	7.8	92.2	10.1	4.6	0.9

Source: State Board of Community Colleges (AA1-A File), 1993.

TABLE 22

FLORIDA PUBLIC COMMUNITY COLLEGE PRACTICAL NURSING PROGRAMS TOTAL CERTIFICATE AND DIPLOMA ENROLLMENTS AND COMPLETIONS BY GENDER AND RACE/ETHNICITY 1987-88 TO 1992-93

	Total Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	831	12.9	87.1	19.9	3.4	2.3
1991-92	945	13.0	87.0	10.5	3.7	2.5
1990-91	849	9.7	90.3	13.2	2.9	1.9
1989-90	860	11.2	88.8	16.6	2.7	1.6
1988-89	767	9.0	91.0	21.8	2.6	1.4
1987-88	556	6.3	93.7	22.8	1.4	1.4

	Program Completions	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	453	14.6	85.4	10.6	2.4	1.8
1991-92	390	8.7	91.3	9.2	3.6	1.5
1990-91	476	10.7	89.3	12.8	2.3	1.5
1989-90	302	11.9	88.1	14.2	1.0	1.3
1988-89	234	5.1	94.9	20.1	3.0	1.7
1987-88	235	4.7	95.3	17.4	0.4	0.9

Source: State Board of Community Colleges (AA1-A File), 1993.

TABLE 23

FLORIDA DISTRICT VOCATIONAL CENTER PRACTICAL NURSING PROGRAMS
TOTAL CERTIFICATE PROGRAM ENROLLMENTS AND COMPLETIONS
BY GENDER AND RACE/ETHNICITY
1987-88 TO 1992-93

	Total Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	17,585	13.9	86.1	18.4	3.7	2.3
1991-92	23,076	16.7	83.3	14.6	3.9	2.3
1990-91	19,182	15.5	84.5	17.9	3.8	1.9
1989-90	14,204	15.6	84.4	18.9	3.5	1.7
1988-89	16,720	10.2	89.8	17.1	2.3	1.3
1987-88	9,175	8.5	91.5	17.7	2.4	1.3

	Total Completers	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	1,815	12.9	87.1	23.4	4.8	1.9
1991-92	1,784	12.9	87.1	23.9	5.4	1.7
1990-91	1,390	9.1	90.9	25.3	4.4	1.4
1989-90	1,332	9.2	90.8	28.1	3.3	1.1
1988-89	1,384	7.9	92.1	28.8	2.4	1.1
1987-88	1,100	7.0	93.0	24.7	2.6	1.2

Source: Division of Applied Technology and Adult Education, 1994.

TABLE 24

FLORIDA PUBLIC COMMUNITY COLLEGE NURSE ASSISTING PROGRAMS
TOTAL CERTIFICATE PROGRAM ENROLLMENTS
AND COMPLETIONS BY GENDER AND RACE/ETHNICITY
1987-88 TO 1992-93

	Total Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	1,038	13.1	86.9	28.1	4.7	2.5
1991-92	994	11.8	88.2	29.4	4.3	2.0
1990-91	947	11.2	88.8	29.8	1.6	2.2
1989-90	793	7.9	92.1	32.3	2.3	0.5
1988-89	846	7.8	99.2	41.0	2.7	1.3
1987-88	631	10.3	89.7	28.2	4.6	0.5

	Completions	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	739	13.1	86.9	27.5	4.7	2.2
1991-92	619	12.3	87.7	30.2	4.2	1.9
1990-91	813	9.7	90.3	27.9	0.7	1.8
1989-90	538	6.5	93.5	29.2	1.3	0.6
1988-89	552	7.1	92.9	39.7	2.2	0.7
1987-88	472	10.4	89.6	27.5	5.1	0.6

Source: State Board of Community Colleges (AA1-A File), 1993.

TABLE 25

FLORIDA DISTRICT VOCATIONAL CENTER NURSE ASSISTING PROGRAMS TOTAL CERTIFICATE PROGRAM ENROLLMENTS AND COMPLETIONS BY GENDER AND RACE/ETHNICITY 1987-88 THROUGH 1992-93

	Total Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	5,880	13.7	86.3	26.8	16.0	1.7
1991-92	6,802	12.4	87.6	26.0	15.3	1.5
1990-91	9,512	13.5	86.5	34.2	11.1	1.8
1989-90	6,777	11.9	88.1	41.7	11.0	1.5
1988-89	5,484	14.2	85.8	46.7	9.2	1.0
1987-88	7,611	9.6	90.4	40.4	8.5	1.5

	Total Completers	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	2,370	11.2	88.8	23.8	22.5	1.4
1991-92	2,552	11.8	88.2	25.7	22.1	1.5
1990-91	2,420	10.2	89.8	31.7	15.6	1.7
1989-90	1,692	7.9	92.1	41.3	11.5	1.5
1988-89	1,240	7.5	92.5	43.6	11.3	0.7
1987-88	1,828	7.5	92.5	38.2	6.6	1.4

Source: Division of Applied Technology and Adult Education, 1994.

TABLE 26

STATE UNIVERSITY SYSTEM
MASTER'S DEGREE NURSING PROGRAMS:
ENROLLMENTS AND DEGREES GRANTED
BY GENDER AND RACE/ETHNICITY

	Fall Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993	681	5.4	94.6	5.1	5.1	2.6
1992	636	4.6	95.4	4.4	3.8	1.7
1991	542	5.9	94.1	3.7	2.8	1.1
1990	489	5.7	94.3	3.5	2.0	1.0
1989	458	5.7	94.3	3.7	2.2	0.7
1988	427	6.6	93.4	3.7	1.2	NA
1987	340	6.8	93.2	1.8	1.2	NA

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993-94	190	6.8	93.2	4.2	4.2	2.1
1992-93	188	4.8	95.2	2.7	5.9	1.6
1991-92	135	5.9	94.1	3.7	3.0	1.5
1990-91	127	7.1	92.9	6.3	----	0.8

Source: Board of Regents, Student Data Course File, 1994.

TABLE 27

UNIVERSITY OF FLORIDA PHYSICIAN ASSISTANT PROGRAM TOTAL BACCALAUREATE ENROLLMENTS AND DEGREES GRANTED BY GENDER AND RACE/ETHNICITY

	Summer Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1994	90	40.0	60.0	4.4	8.9	---
1993	59	49.2	50.8	6.8	10.2	6.8
1992	74	50.0	50.0	2.7	12.2	5.4
1991	76	46.1	53.9	5.3	7.9	2.6
1990	64	35.9	64.1	9.4	4.7	3.1

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
Summer Class 1994	29	48.3	51.7	6.9	10.3	13.8
Summer Class 1993	44	50.0	50.0	---	13.6	---
Summer Class 1992	31	38.7	61.3	9.7	---	6.5
Summer Class 1991	32	34.4	65.6	9.4	9.4	---
Summer Class 1990	29	37.9	62.1	3.4	6.9	---

Source: Physician Assistant Program, University of Florida, 1995.

TABLE 28

STATE UNIVERSITY SYSTEM PHYSICAL THERAPY PROGRAMS TOTAL UPPER LEVEL BACCALAUREATE ENROLLMENTS AND DEGREES GRANTED BY GENDER AND RACE/ETHNICITY

	Fall Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993	361	34.1	65.9	6.4	15.5	3.0
1992	322	31.1	68.9	4.7	14.9	2.8
1991	243	31.3	68.7	8.2	18.9	1.6
1990	144	27.1	72.9	11.8	22.2	4.2
1989	175	24.6	75.4	7.4	15.4	1.7
1988	190	20.5	79.5	6.8	11.1	2.1
1987	154	20.8	79.2	7.1	8.4	1.9

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993-94	120	33.3	66.7	7.5	8.3	4.2
1992-93	157	33.8	66.2	13.4	12.7	1.3
1991-92	103	31.1	68.9	8.7	16.5	1.9
1990-91	94	27.7	72.3	9.6	9.6	2.1
1989-90	110	22.7	77.3	2.7	8.2	0.9
1988-89	76	31.6	68.4	9.2	9.2	---
1987-88	72	18.1	81.9	2.8	4.2	---

Source: Board of Regents, Student Data Course File, 1994.

TABLE 29

STATE UNIVERSITY SYSTEM OCCUPATIONAL THERAPY PROGRAMS TOTAL UPPER LEVEL BACCALAUREATE ENROLLMENTS AND DEGREES GRANTED BY GENDER AND RACE/ETHNICITY

	Fall Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993	262	14.9	85.1	11.4	14.9	1.5
1992	246	11.0	89.0	11.4	11.8	0.8
1991	229	8.3	91.7	7.9	11.8	1.7
1990	236	7.6	92.4	8.1	11.4	0.8
1989	254	7.1	92.9	8.7	16.1	1.2
1988	279	10.4	89.6	12.5	13.6	2.2
1987	207	11.6	88.4	3.9	13.5	1.0

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1993-94	94	12.8	87.2	10.6	12.8	3.2
1992-93	115	7.0	93.0	10.4	11.3	---
1991-92	75	5.3	94.7	6.7	10.7	2.7
1990-91	60	1.7	98.3	5.0	11.7	---
1989-90	60	10.0	90.0	1.7	16.7	1.7
1988-89	59	8.5	91.5	3.4	10.2	---
1987-88	56	14.3	85.7	---	3.6	---

Source: Board of Regents, Student Data Course File, 1994.

TABLE 30

COMMUNITY COLLEGE DENTAL HYGIENE PROGRAMS TOTAL ENROLLMENTS AND ASSOCIATE OF SCIENCE DEGREES GRANTED BY GENDER AND RACE/ETHNICITY 1987-88 TO 1992-93

	Total Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	765	2.2	97.8	2.7	12.2	1.0
1991-92	735	1.4	98.6	3.5	11.4	1.2
1990-91	693	1.6	98.4	2.5	8.5	1.3
1989-90	705	1.1	98.9	2.7	9.2	1.4
1988-89	649	0.8	98.2	3.1	9.9	1.5
1987-88	591	0.8	99.2	3.6	10.2	1.0

	Degrees Granted	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	275	0.7	99.3	2.5	10.5	1.1
1991-92	255	1.6	98.4	2.0	12.5	2.0
1990-91	233	0.9	99.1	2.1	7.7	--
1989-90	225	--	100	1.8	6.2	0.9
1988-89	221	0.9	99.1	2.3	12.7	1.4
1987-88	205	1.0	99.0	2.0	10.7	0.5

Source: State Board of Community Colleges (AA1-A File), 1993.

TABLE 31

FLORIDA DISTRICT VOCATIONAL CENTER DENTAL ASSISTING PROGRAMS TOTAL ENROLLMENTS AND CERTIFICATE COMPLETIONS BY GENDER AND RACE/ETHNICITY, 1987-88 TO 1992-93

	Total Enrollments	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	785	28.2	71.8	9.6	25.7	1
1991-92	831	26.0	74.0	8.1	26.0	1.1
1990-91	753	27.5	72.5	8.0	19.5	0.4
1989-90	739	28.3	71.7	8.3	21.9	1.4
1988-89	758	30.6	69.4	7.1	21.4	0.8
1987-88	790	30.4	69.6	7.6	12.8	0.4

	Total Completers	Male %	Female %	Black %	Hispanic %	Asian & Pacific Islander %
1992-93	143	1.4	98.6	12.6	5.6	---
1991-92	134	0.7	99.3	9	11.9	0.7
1990-91	114	---	100.0	7.0	7.6	---
1989-90	121	1.6	98.4	12.4	6.6	0.8
1988-89	118	0.8	99.2	9.3	14.4	0.8
1987-88	99	---	100.0	8.1	9.1	---

Source: Division of Applied Technology and Adult Education, 1994.

APPENDIX C

HEALTH PROFESSIONS

ACADEMIC DEGREE PROGRAMS INVENTORY

(BACCALAUREATE DEGREE AND HIGHER)

STATE UNIVERSITY SYSTEM

ACADEMIC DEGREE PROGRAMS INVENTORY

Degree Programs	UF	FSU	FAMU	USF	FAU	UWF	UCF	FIU	UNF
Medicine - Allopathic	P			P					
Dentistry	P								
Veterinary Medicine	P								
Pharmacy	BMDP		BMDP						
Public Health				MD				M*	
Nursing	BMD	BM	B	BM	BM	B	BM	BM	B
Physician Assistant	B								
Physical Therapy	BM		B				B	BM	B
Occupational Therapy	BM		B					BM	

Note: Programs approved by the Board of Regents as of January 1995.
B = Baccalaureate
M = Master
D = Doctoral
P = Professional

Source: Board of Regents, 1995.

* Public Health at FIU is affiliated with the University of Miami.

INDEPENDENT COLLEGES AND UNIVERSITIES IN FLORIDA
ACADEMIC DEGREE PROGRAMS INVENTORY AT THE
BACCALAUREATE LEVEL AND HIGHER

Medicine: Allopathic	University of Miami
Osteopathic	Nova Southeastern University
Pharmacy	Nova Southeastern University
Public Health	Central Michigan University
	Nova Southeastern University
	University of Miami*
Nursing	Andrews University
	Barry University
	Bethune-Cookman College
	Jacksonville University
	Florida Southern College
	Pensacola Christian College
	Southern College of Seventh Day Adventists
	University of Miami
	University of Tampa
Physician Assistant	Nova Southeastern University
Physical Therapy	Andrews University
	Barry University
	Institute of Physical Therapy
	University of Miami
	Nova Southeastern University
Occupational Therapy	Barry University
	Nova Southeastern University

* Public Health program at University of Miami is affiliated with Florida International University.

Source: Institutional reports to the State Board of Independent Colleges and Universities, 1992-93; compiled by the Postsecondary Education Planning Commission.

Affirmative action/equal opportunity employer
Frank T. Brogan, Commissioner